

STIC SEARCH RESULTS FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact the searcher or contact:

Mary Hale, Information Branch Supervisor 22507, Remsen 1d86

V O	untary results reeuback ruin
>	I am an examiner in Workgroup: Example: 1610
>	Relevant prior art found, search results used as follows:
	102 rejection
	☐ 103 rejection
	Cited as being of interest.
	Helped examiner better understand the invention.
	Helped examiner better understand the state of the art in their technology.
	Types of relevant prior art found:
	☐ Foreign Patent(s)
	 Non-Patent Literature (journal articles, conference proceedings, new product announcements etc.)
>	Relevant prior art not found:
	Results verified the lack of relevant prior art (helped determine patentability).
	Results were not useful in determining patentability or understanding the invention.
Co	mments:

Diop offersand completed forms to STICIBIO tech-Chem Library CM1 — Circ. Desk



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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 14 JUN 2006 HIGHEST RN 887828-19-5 DICTIONARY FILE UPDATES: 14 JUN 2006 HIGHEST RN 887828-19-5

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

NODE ATTRIBUTES: DEFAULT MLEVEL IS ATOM DEFAULT ECLEVEL IS LIMITED

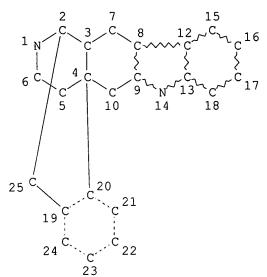
GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED NUMBER OF NODES IS 24

STEREO ATTRIBUTES: NONE

L27 1550 SEA FILE=REGISTRY SSS FUL L25

L28 STR



NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

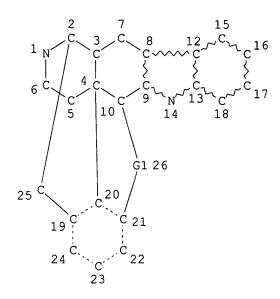
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L31 STR



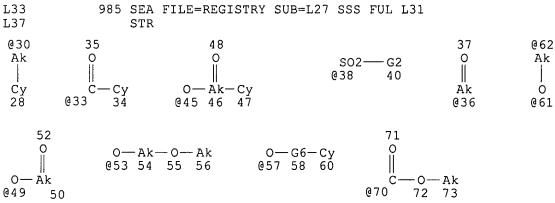
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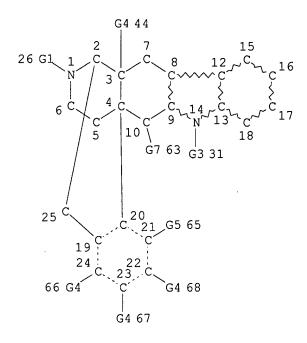
NUMBER OF NODES IS 25

STEREO ATTRIBUTES: NONE



Ak-0-Ak @74 75 76

Page 1-A



Page 2-A
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REP G6=(0-1) AK
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RSPEC 10

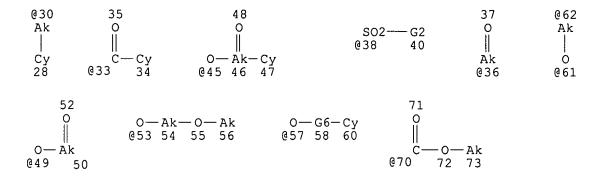
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STEREO ATTRIBUTES: NONE

L39

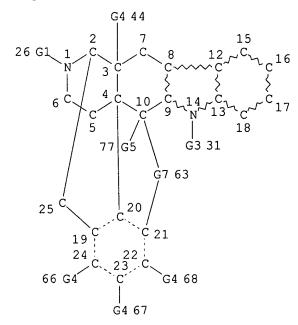
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L40 S7



Ak-O-Ak @74 75 76

Page 1-A



Page 2-A
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VAR G5=H/AK/30/62/74/COOH/70
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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            222 SEA FILE=REGISTRY ABB=ON PLU=ON (L39 OR L42)
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                SET COST OFF
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                E TORAY/PA, CS
                E KAWAI/AU
                E KAWAI K/AU
L2
            227 S E3, E4
                E KAWAI KOJI/AU
            227 S E3-E6
L3
                E KAWAI NAME/AU
L4
             22 S E4
                E KOJI/AU
L5
              1 S E39
L6
              1 S E83
                E SAITO/AU
            349 S E3-E6
L7
L8
             16 S E49, E50
                E SAITO NAME/AU
L9
            133 S E4
                E AKIYOSHI/AU
L10
              5 S E129
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L11
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L12
           3764 S E3-E9
                E SUZUKI TOMOHIKO/AU
L13
            145 S E3
                E SUZUKI NAME/AU
L14
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                E TOMOHIKO/AU
L15
              1 S E9
                E HASEBE/AU
             38 S E57
L16
L17
            132 S E02
                E HASEBE NAME/AU
                E KO/AU
L18
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                E KO H/AU
            248 S E3-E17
L19
                E KO NAME/AU
L20
             30 S E4
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            792 S E3-E5
L21
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L22
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L23
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L24
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L27
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L28
                 STR L25
L29
               1 S L28 SAM SUB=L27
L30
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L31
                 STR L28
L32
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L33
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L34
L35
               2 S L24 NOT L34
L36
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L37
                 STR L36
L38
               1 S L37 CSS SAM SUB=L30
L39
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L40
                 STR L37
L41
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L42
             208 S L40 CSS FUL SUB=L33
                 SAV L42 GEMBEH520D/A
L43
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     FILE 'HCAOLD' ENTERED AT 08:39:39 ON 15 JUN 2006
L44
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                 SEL AN
                 EDIT E12 /AN /OREF
     FILE 'HCAPLUS' ENTERED AT 08:40:19 ON 15 JUN 2006
L45
               2 S E12
L46
               1 S L45 NOT BEYER ?/AU
L47
             416 S L43
L48
              10 S L47 AND L1-L23
L49
               9 S L47 AND TORAY?/PA,CS
L50
              17 S L1, L48, L49
                 E NAUSEA/CT
                 E E3=ALL
                 E NAUSEA/CT
                 E E3+ALL
L51
           1394 S E2
                 E E4+ALL
L52
           2960 S E2
L53
           2889 S E3/BI OR E4/BI
L54
           8785 S E7/BI
                 E E5+ALL
L55
            3139 S E6
L56
            4436 S ANTIEMETI? OR ANTINAUSEA? OR ANTI()(EMETI? OR NAUSEA?)
                 E NAUSEA
L57
            9023 S E3-E14,E16-E21,E24,E31
                 E VOMIT/CT
L58
            2961 S E4-E6
                 E E4+ALL
                 E VOMIT
L59
           10982 S E3-E19, E22-E27
L60
               4 S L47 AND L51-L59
L61
               1 S L47 AND (A61P001-08 OR A61P0001-08)/IPC, IC, ICM, ICS, ICA, ICI
L62
               4 S L60, L61
               1 S L50 AND L62
L63
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L64
              4 S L62, L63
L65
             16 S L50 NOT L64
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L66
              1 S MORPHINE/CN
L67
             28 S C17H19NO3/MF AND 4766.1.6/RID
             27 S L67 AND MORPHIN?
L68
             27 S L66, L68
L69
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L70
           2789 S L69 (L) ADV/RL
L71
             15 S L70 AND L47
L72
             11 S L43 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL AND L71
L73
             14 S L64, L72
L74
              4 S L71 NOT L73
L75
              2 S L74 NOT (2002:466697 OR 2000:68481)/AN
L76
             16 S L73, L75
L77
             11 S L76 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
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              5 S L76 NOT L77
L79
            349 S L47 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
T80
            204 S L79 AND L43 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL
                E OPIODS/CT
L81
           2461 S E68+OLD, NT (L) ADV/RL
L82
             13 S L81 AND L80
L83
             19 S L77, L82
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FILE 'REGISTRY' ENTERED AT 08:56:23 ON 15 JUN 2006

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FILE COVERS 1907 - 15 Jun 2006 VOL 144 ISS 25 FILE LAST UPDATED: 14 Jun 2006 (20060614/ED)

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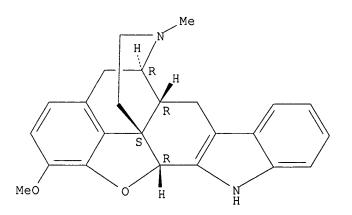
This file contains CAS Registry Numbers for easy and accurate substance identification.

=> => d all hitstr

L84 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2006 ACS on STN AN 1961:48629 HCAPLUS DN 55:48629 OREF 55:9374g-i,9375a ED Entered STN: 22 Apr 2001

jan delaval - 15 june 2006

```
ΤI
    Morphine derivatives. II. 3-Methoxy-4,5-epoxy-6,7-(2',3'-indolo)-N-
    methylmorphinan
     Ekmekdzhyan, S. P.; Tatevosyan, G. T.
ΑU
     Izvest. Akad. Nauk Armyan. S.S.R., Khim. Nauki (1960), 13(No. 2-3), 201-5
SO
DT
     Journal
     Russian
LA
CC
     10G (Organic Chemistry: Heterocyclic Compounds)
GΙ
     For diagram(s), see printed CA Issue.
AB
     cf. CA 54, 22700a; Terzyan and Tatevosyan, CA 55, 7384i. Dihydrocodeinone
     (9 g.) and 5 g. PhHNNH2 was boiled 3 hrs. in 120 ml. alc. and 5 ml.
concentrated
     H2SO4 and the precipitate was filtered off to give the H2SO4 salt of
     N-methylmorphinan (I), yield 95.1%, m. 322-3°. HCl used instead of
     H2SO4, gave 80.2% I.HCl, m. 294-5°. I.H2SO4 (13 g.) in 200 ml. 10%
     NaOH heated on the water bath 2.5-3 hrs. and the precipitate filtered off
yielded
     88.5% I, m. 125-6° (alc.); methiodide m. 287-8° (decomposition);
    picrate m. 209° (decomposition) (alc.). I.MeI (6.8 g.) boiled 6 hrs. in
     50% NaOH and 50 ml. H2O, the precipitate filtered off, washed, dried, and
extracted
     with Et2O, and the Et2O extract concentrated gave II, yield 68.8%, m. 163°;
     II.HCl m. 208° (decomposition). II.HCl (2.4 g.) and 6 ml. Ac20 was
     heated 18-20 hrs. in a sealed tube to 180°, 25 ml. H2O added and
     the mixture filtered. To the filtrate was added 60 ml. 10% NaOH and the
     whole distilled, with the distillate collected in 50 ml. 2N HCl. The HCl
     solution was concentrated and treated with AuCl3 to give the AuCl3 salt of
     β-dimethylaminoethanol, m. 201-2°.
IT
     119079-09-3, 6,7-(2',3'-Indolo)morphinan, 4,5-epoxy-3-methoxy-N-
             124116-39-8, 6H-Benz[3,4]isobenzofuro[1,7-ab]carbazole,
     12c-(2-dimethylaminoethyl)-5a,11,11b,12c-tetrahydro-1-methoxy-
        (and derivs.)
ΙT
     57-27-2, Morphine
        (derivs.)
ΙT
     124131-07-3, 4,5,5a,6,11,11b-Hexahydro-1-methoxy-15,15-dimethyl-5,12c-
     iminoethano-12cH-benz[3,4]isobenzofuro[1,7-ab]carbazolium iodide
        (preparation of)
     119079-09-3, 6,7-(2',3'-Indolo)morphinan, 4,5-epoxy-3-methoxy-N-
IT
    methyl-
        (and derivs.)
RN
    119079-09-3 HCAPLUS
CN
     4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole, 5,6,7,8,8a,9,14,14b-
     octahydro-1-methoxy-7-methyl-, (4bS, 8R, 8aR, 14bR)- (9CI) (CA INDEX NAME)
```



=> fil hcaold FILE 'HCAOLD' ENTERED AT 08:57:17 ON 15 JUN 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2006 AMERICAN CHEMICAL SOCIETY (ACS)

PRE-1967 CHEMICAL ABSTRACTS FILE WITH HOUR-BASED PRICING FILE COVERS 1907-1966 FILE LAST UPDATED: 01 May 1997 (19970501/UP)

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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=> d all hitstr 144

L44 ANSWER 1 OF 1 HCAOLD COPYRIGHT 2006 ACS on STN

AN CA55:9374g CAOLD

TI morphine derivs. - (II) 3-methoxy-4,5-epoxy-6,7-(2',3'-indolo)-N-methylmorphinan

AU Ekmekdzhyan, S. P.; Tatevosyan, G. T.

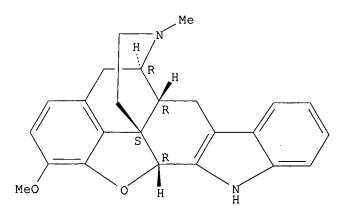
IT **119079-09-3 119786-35-5** 124116-39-8 124116-40-1 124131-07-3

IT 119079-09-3 119786-35-5

RN 119079-09-3 HCAOLD

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole, 5,6,7,8,8a,9,14,14b-octahydro-1-methoxy-7-methyl-, (4bS,8R,8aR,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 119786-35-5 HCAOLD

CN 5,12c-Iminoethano-12cH-benz[3,4]isobenzofuro[1,7-ab]carbazole,

4,5,5a,6,11,11b-hexahydro-1-methoxy-15-methyl-, picrate (6CI) (CA INDEX NAME)

CM 1

CRN 119079-09-3 CMF C24 H24 N2 O2

Absolute stereochemistry.

CM 2

CRN 88-89-1 CMF C6 H3 N3 O7

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FILE COVERS 1907 - 15 Jun 2006 VOL 144 ISS 25 FILE LAST UPDATED: 14 Jun 2006 (20060614/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

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    ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
ΑN
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DN
     141:76753
    Oral drug delivery systems which form a network within the formulation and
TΙ
     an outer surface for desirable drug release kinetics
IN
     Yum, Su Il; Schoenhard, Grant; Tipton, Arthur J.; Gibson, John W.;
    Middleton, John C.
PA
     Durect Corporation, USA
SO
     PCT Int. Appl., 56 pp.
     CODEN: PIXXD2
DT
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LA
     English
FAN.CNT 1
                       KIND
     PATENT NO.
                                DATE
                                          APPLICATION NO.
                                                                 DATE
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    WO 2004054542
                         A2
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             GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ,
             OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
             TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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     US 2003-517464P
                         Ρ
                                20031104
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                         W
                                20031215
                                         <--
     WO 2003-US40156
    An oral dosage form comprises a formulation that, upon exposure to an aqueous
AB
```

environment, forms a network within the formulation and an outer surface, and wherein the formulation comprises a high viscosity liquid carrier material (e.g., sucrose acetate isobutyrate), a network former (e.g. cellulose acetate butyrate), and a drug. For example, a formulation comprising sucrose acetate isobutyrate, Et lactate, iso-Pr myristate, and cellulose acetate butyrate at the ratio of 65:27:3:5, was prepared and oxycodone (9 mg/g) was added. The mixture was heated to fill soft gel capsules.

IC ICM A61K0009-00

CC 63-6 (Pharmaceuticals)

ITAdrenoceptor antagonists Anesthetics

Anti-infective agents Anti-inflammatory agents Antibiotics Anticoaqulants Antiemetics Antihistamines Antimalarials Antipsychotics Antipyretics Antiviral agents Cardiovascular agents Chemotherapy Cholinergic antagonists Decongestants Dissolution Fungicides Human Immunosuppressants Nervous system depressants Nervous system stimulants Nutrients Tranquilizers Vaccines (oral delivery systems forming network within formulation and outer surface for desirable drug release kinetics) 51-64-9, Dextroamphetamine 57-27-2, Morphine, biological studies 57-42-1, Meperidine 58-00-4, Apomorphine 59-02-9, α -Tocopherol 62-67-9, Nalorphine 64-17-5, Ethyl alcohol, biological studies 64-39-1, Promedol 67-63-0, Isopropyl alcohol, biological studies 67-68-5, DMSO, biological studies 76-41-5, Oxymorphone 76-57-3, Codeine 76-58-4, Ethylmorphine 76-99-3, Methadone 77-07-6, 77-14-5, Propheptazine 77-15-6, Ethoheptazine Levorphanol Alphaprodine 77-93-0, Triethyl citrate 84-66-2, Diethyl phthalate 100-51-6, Benzyl alcohol, biological studies 102-76-1, Triacetine 108-32-7, Propylene carbonate 110-27-0, Isopropyl myristate Ethyl oleate 113-45-1, Methylphenidate 120-51-4, Benzyl benzoate 125-28-0, Dihydrocodeine 125-29-1, Hydrocodone 126-13-6, Sucrose acetate isobutyrate 127-35-5, Phenazocine 131-11-3, Dimethyl phthalate 131-28-2, Narceine 143-52-2, Metopon 144-14-9, Anileridine Levallorphan 302-41-0, Piritramide 357-56-2, Dextromoramide 359-83-1, Pentazocine 427-00-9, Desomorphine 428-37-5, Profadol 441-61-2, Ethylmethylthiambutene 437-38-7, Fentanyl 465-65-6, Naloxone 466-40-0, Isomethadone 466-97-7, Normorphine 466-99-9, Hydromorphone 467-18-5, Myrophine 467-83-4, Dipipanone 467-84-5, Phenadoxone 467-85-6, Normethadone 468-07-5, Phenomorphan 468-56-4, Hydroxypethidine 469-62-5, Propoxyphene 469-79-4, Ketobemidone 509-60-4, Dihydromorphine 509-67-1, Pholcodine 509-78-4, Dimenoxadol 524-84-5, Dimethylthiambutene 545-90-4, Dimepheptanol 552-25-0, Diampromide 561-27-3, Heroin 561-48-8, Norpipanone 561-76-2, Properidine 562-26-5, Phenoperidine 639-48-5, Nicomorphine Apocodeine 872-50-4, NMP, biological studies 911-65-9, Etonitazene 1531-12-0, Norlevorphanol 3194-25-0, Nalorphine dinicotinate 3734-52-9, Metazocine 3861-76-5, Clonitazene 3572-80-3, Cyclazocine 4163-15-9, Cyclorphan 4406-22-8, Cyprenorphine 9004-36-8, Cellulose acetate butyrate 10061-32-2, Levophenacylmorphan 13495-09-5, Piminodine 14297-87-1, Benzylmorphine 14357-78-9, Diprenorphine 14521-96-1, Etorphine 15301-48-1, Bezitramide 15686-91-6, Propiram 16590-41-3, Naltrexone 16676-26-9, Nalmexone 20594-83-6, Nalbuphine 25322-68-3, PEG 400 25384-17-2, Allylprodine 27203-92-5, Tramadol

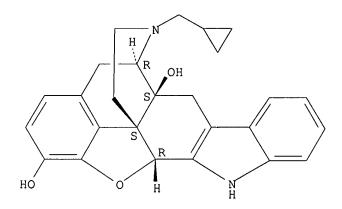
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51931-66-9, Tilidine
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    Alfentanil
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    82970-70-5
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    88161-22-2, Dynorphin A 88373-73-3 89352-67-0 93302-47-7, Naloxone
    methiodide 96744-75-1 103429-31-8, CTOP
                                                 105618-26-6,
    Norbinaltorphimine 111555-53-4, Naltrindole
                                                 111555-58-9,
              118111-54-9, Cyprodime 119630-94-3, Naloxone
    Naltriben
    benzoylhydrazone 126876-64-0 132875-61-7, Remifentanyl
                                                                149997-88-6,
    (D-Ala2,Glu4)deltorphin 153611-34-8, BNTX
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (oral delivery systems forming network within formulation and outer
       surface for desirable drug release kinetics)
IT
    111555-53-4, Naltrindole
    RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
       (oral delivery systems forming network within formulation and outer
       surface for desirable drug release kinetics)
RN
    111555-53-4 HCAPLUS
CN
    4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
    7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
    (CA INDEX NAME)
```

Absolute stereochemistry.

L83



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AN
     2004:60515 HCAPLUS
DN
     140:105310
ΤI
     Therapeutic or preventive agent for nausea/vomiting
IN
    Kawai, Koji; Saito, Akiyoshi; Suzuki, Tomohiko
     ; Hasebe, Ko; Suzuki, Tsutomu
PΑ
     Toray Industries, Inc., Japan
SO
     PCT Int. Appl., 26 pp.
     CODEN: PIXXD2
DT
     Patent
     Japanese
FAN.CNT 1
     PATENT NO.
                         KIND
                                 DATE
                                            APPLICATION NO.
                                                                    DATE
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ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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     WO 2003-JP8751
                                           <--
OS
     MARPAT 140:105310
GΙ
```

$$R^{1}$$
 R^{2}
 R^{6}
 R^{4}
 R^{3}

AB A therapeutic or preventive agent for <code>nausea/vomiting</code> which contains as an active ingredient either a morphinane derivative represented by the general formula (I): (wherein R1 represents cyclopropylmethyl, etc.; R2 and R3 each represents hydroxy, methoxy, etc.; R4 and R5 are bonded to each other to form -O-, etc.; R6 represents hydrogen, etc.; and Q represents (II) which has been optionally substituted, etc., provided that X represents NH, NMe, etc.) or a pharmacol. acceptable acid addition salt thereof. The compound or salt is useful in a medicine widely applicable to <code>vomiting</code> caused by drugs having emetic activity, especially in a therapeutic or preventive agent for <code>nausea/vomiting</code> induced by μ agonists represented by morphine.

IC ICM C07D0491-18

ICS C07D0491-22; C07D0491-08; A61K0045-00; A61K0031-485; A61P0001-08; A61P0025-00

CC 1-11 (Pharmacology)

Section cross-reference(s): 27

Ι

ST morphinane deriv morphine mu opioid antiemetic nausea vomiting

IT Antiemetics Nausea

Vomiting

(morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

IT Opioids

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(μ -; morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

IT 57-27-2, Morphine, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

IT 75-75-2, Methane sulfonic acid 100-63-0, Phenylhydrazine 16590-41-3, Naltrexone

RL: RCT (Reactant); RACT (Reactant or reagent)

(morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

IT 111555-53-4P, Naltrindole 122431-18-9P 129468-28-6P 189015-24-5P 200701-97-9P 214043-59-1P 647858-68-2P RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

IT 57-27-2, Morphine, biological studies

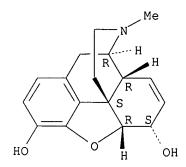
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

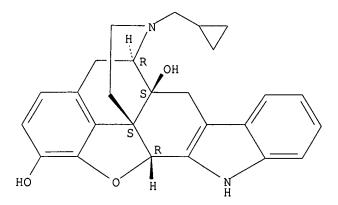


IT 111555-53-4P, Naltrindole

RL: SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study); PREP (Preparation); USES (Uses) (morphinane derivs. as therapeutic or preventive agents for nausea/vomiting induced by μ agonists)

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)



RETABLE

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Portoghese, P				Journal of Medicinal	
Regents Of The Universi	1005	J4		JP 09-505052 A	I
Regents Of The Universi				•	HCAPLUS
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Torray Industries Inc	1998				HCAPLUS

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University Of Minnesota | 1989 |
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    ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
     2003:745071 HCAPLUS
AN
DN
     140:281149
ΤI
     Dependence studies of new compounds in the rhesus monkey, rat and mouse
     Aceto, M. D.; Bowman, E. R.; Harris, L. S.; Hughes, Larry D.; Kipps, B.
ΑU
     R.; May, E. L.
CS
     Department of Pharmacology and Toxicology, School of Medicine, Virginia
     Commonwealth University, Richmond, VA, USA
SO
     NIDA Research Monograph (2003), 183 (Problems of Drug Dependence
     2002), 191-227
     CODEN: MIDAD4; ISSN: 0361-8595
PΒ
    National Institute on Drug Abuse
DT
     Journal
LΑ
     English
     Results of dependence-liability studies in rhesus monkeys, rat-infusion
AΒ
     studies, and mouse-antinociception tests of new compds. using different
     assays are presented. All of the compds. submitted for evaluation were
     unknown except oxycodone and naltrindole.
CC
     1-11 (Pharmacology)
IT
     Opioids
     RL: ADV (Adverse effect, including toxicity); BSU (Biological
     study, unclassified); PAC (Pharmacological activity); BIOL (Biological
     study)
        (dependence studies of new compds. in rhesus monkey, rat and mouse)
ΙT
     50-13-5, Meperidine hydrochloride
                                         52-28-8, Codeine phosphate
     57-29-4, Nalorphine hydrochloride 64-31-3, Morphine sulfate
                            110-63-4, 1,4-Butanediol, biological studies
     96-48-0, Butyrolactone
     124-90-3, Oxycodone hydrochloride 127-35-5, Phenazocine
     Naloxone hydrochloride 359-83-1, Pentazocine
                                                       575-19-9,
     6,7-Benzomorphan
                        771-99-3, 4-Phenylpiperidine
                                                       3572-80-3, Cyclazocine
     16676-29-2, Naltrexone hydrochloride
                                            25265-75-2, Butanediol
                                                                     63903-74-2
     111469-81-9, Naltrindole hydrochloride
                                              156053-89-3
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     RL: ADV (Adverse effect, including toxicity); BSU (Biological
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     (Biological study)
        (dependence studies of new compds. in rhesus monkey, rat and mouse)
     50-13-5, Meperidine hydrochloride 111469-81-9,
IΤ
     Naltrindole hydrochloride 674347-18-3 674789-84-5
     RL: ADV (Adverse effect, including toxicity); BSU (Biological
     study, unclassified); PAC (Pharmacological activity); BIOL
     (Biological study)
        (dependence studies of new compds. in rhesus monkey, rat and mouse)
RN
     50-13-5 HCAPLUS
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4-Piperidinecarboxylic acid, 1-methyl-4-phenyl-, ethyl ester,

hydrochloride (9CI) (CA INDEX NAME)

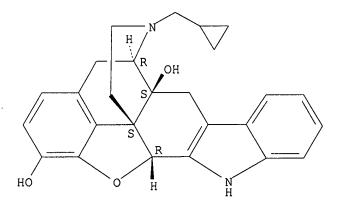
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● HCl

RN 111469-81-9 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, monohydrochloride, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

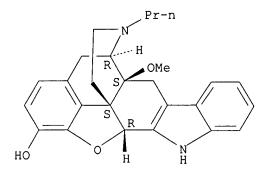
Absolute stereochemistry.



● HCl

RN 674347-18-3 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazol-1-ol, 5,6,7,8,8a,9,14,14b-octahydro-8a-methoxy-7-propyl-, monohydrochloride, (4bS,8R,8aR,14bR)- (9CI) (CA INDEX NAME)

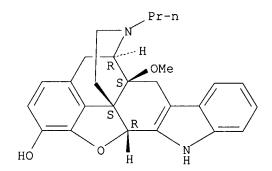


● HCl

RN 674789-84-5 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazol-1-ol, 5,6,7,8,8a,9,14,14b-octahydro-8a-methoxy-7-propyl-, (4bS,8R,8aS,14bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

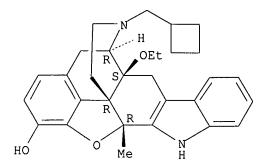


RETABLE

Referenced Author (RAU)	Year (RPY)	•	PG (RPG)	• • • •
Aceto, M Aceto, M Aceto, M Aceto, M Atwell, L Deneau, G Dewey, W Dewey, W D'Amour, F Eddy, N Jacobson, A Pearl, J Schild, M Seevers, M Seevers, M Tallarida, R Teiger, D	1941 1953 1965 1966 1947 1936 1963 1987	50 15 7 175 179 72 107 8 154 2	203 1 42 435 652 74 385 563 319 189 147 565	Br J Pharmacol
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L83 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

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ΑN
     2003:745070 HCAPLUS
DN
     140:264237
TΙ
     Evaluation of new compounds for opioid activity (2002)
ΑU
     Woods, J. H.; Ko, M.-C.; Winger, G.; France, C. P.; Traynor, J. R.
CS
     Departments of Pharmacology and Psychology, University of Michigan, Ann
     Arbor, MI, USA
SO
     NIDA Research Monograph (2003), 183 (Problems of Drug Dependence
     2002), 170-190
     CODEN: MIDAD4; ISSN: 0361-8595
PΒ
     National Institute on Drug Abuse
DT
     Journal
LA
     English
AB
     Data on opioid abuse liability evaluations of compds. using rhesus monkeys
     are presented. These data usually involve in vitro evaluation in opioid
     binding assays, and the compds. may be evaluated for discriminative and
     reinforcing effects.
CC
     1-11 (Pharmacology)
IT
     Opioids
     RL: ADV (Adverse effect, including toxicity); BSU (Biological
     study, unclassified); PAC (Pharmacological activity); BIOL (Biological
        (activity; evaluation of new compds. for opioid activity)
IT
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                                        156053-89-3
     478285-60-8
                   674346-94-2
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                                 674347-35-4
     RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
     unclassified); PAC (Pharmacological activity); BIOL (Biological
        (evaluation of new compds. for opioid activity)
ΙT
     478285-60-8 674347-18-3
     RL: ADV (Adverse effect, including toxicity); BSU (Biological study,
     unclassified); PAC (Pharmacological activity); BIOL (Biological
     study)
        (evaluation of new compds. for opioid activity)
RN
     478285-60-8 HCAPLUS
CN
     4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazol-1-ol,
     7-(cyclobutylmethyl)-8a-ethoxy-5,6,7,8,8a,9,14,14b-octahydro-14b-methyl-,
     monohydrochloride, (4bR, 8R, 8aS, 14bR) - (9CI) (CA INDEX NAME)
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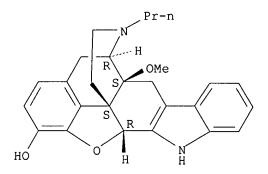


● HCl

RN 674347-18-3 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazol-1-ol, 5,6,7,8,8a,9,14,14b-octahydro-8a-methoxy-7-propyl-, monohydrochloride, (4bS,8R,8aR,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

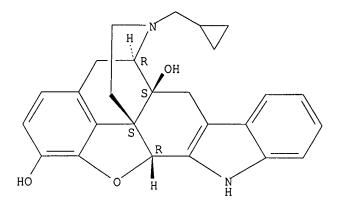


● HCl

RETABLE

	Year VO		Referenced Work Referenced
, ,	(RPY) (RV		·
Bertalmio, A	1982 7	==+==== 289	J Pharmacol Meth HCAPLUS
Cheng, Y	11973 22	3099	Biochem Pharmacol HCAPLUS
Clark, M	1997 283	501	J Pharmacol Exp Ther HCAPLUS
Dykstra, L	1986 15	263	J Pharmacol Meth HCAPLUS
Emmerson, P	1996 278	1121	J Pharmacol Exp Ther HCAPLUS
France, C	1989 250	937	J Pharmacol Exp Ther HCAPLUS
France, C	1990 252	1600	J Pharmacol Exp Ther HCAPLUS
France, C	1990 328	1295	Progress in Clinical HCAPLUS
Howell, L	1988 245	1364	J Pharmacol Exp Ther HCAPLUS
Lee, K	1999 378	1323	Eur J Pharmacol HCAPLUS
Traynor, J	1995 47	1848	Mol Pharmacol HCAPLUS
Winger, G	1989 24	135	Drug and Alc Depend HCAPLUS
Zhu, J	1997 282	1676	J Pharmacol Exp Ther HCAPLUS

```
L83 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     2003:62747 HCAPLUS
DN
     139:17490
TΙ
     Sufentanil-related respiratory depression and antinociception in the dog:
     mediation by different receptor types
ΑU
     Latasch, Leo; Freye, Enno
CS
     Dept. of Anesthesiology and Pain Therapy, Krankenhaus Nordwest,
     Frankfurt/Main, Germany
SO
     Arzneimittel-Forschung (2002), 52(12), 870-876
    CODEN: ARZNAD; ISSN: 0004-4172
PΒ
    Editio Cantor Verlag
DT
     Journal
LΆ
     English/German
AΒ
     The \mu-receptor purportedly is considered the site responsible for the
    mediation of opioid-related respiratory depression. However, there is no
     equivocal understanding whether the same site is also responsible for
     antinociception. For blockade of effects, the selective \mu-antagonist
     \beta-funaltrexamine (CAS 72782-05-9, \beta-FNA) was given
     intracerebroventricularly (i.c.v.) prior to increasing doses of sufentanil
     (CAS 60561-17-3) (3, 6 and 12 pg/kg) in the conscious dog. This was
     followed by the selective 6-antagonist naltrindole (CAS
     111555-53-4) (160 \mug/kg). After one week, using the same
     dosages and the same animals, saline instead of \beta-FNA was given
     i.c.v., again followed by sufentanil and naltrindole. Arterial blood
     gases (pa02, paC02) were used to demonstrate respiratory impairment while
     somatosensory-evoked potentials reflected sensory blockade. Maximal
     depression of paO2 was 73.9 with and 55.0 mmHg without \beta-FNA, while
     paCO2 rose to 44.7 without and to 35.0 mmHg with \beta-FNA (p < 0.005).
     In the evoked potential, maximal depression was 39.1% with and 92.7%
     without \beta-FNA (p < 0.005). Naltrindole reversed residual hypoxia,
     however, not hypercarbia or amplitude reduction of the evoked potential.
     regulation of pa02, a \mu-\delta-receptor interaction is postulated
     while paCO2 and sensory blockade are affected solely by the opioid
    \mu-site.
CC
     1-11 (Pharmacology)
IT
    Opioids
    RL: ADV (Adverse effect, including toxicity); DMA (Drug
    mechanism of action); PAC (Pharmacological activity); THU (Therapeutic
     use); BIOL (Biological study); USES (Uses)
        (mediation by different receptor types of sufentanil-related
        respiratory depression and antinociception)
    72782-05-9, β-Funaltrexamine 111555-53-4, Naltrindole
IT
    RL: DMA (Drug mechanism of action); PAC (Pharmacological
    activity); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (mediation by different receptor types of sufentanil-related
        respiratory depression and antinociception)
TΤ
     111555-53-4, Naltrindole
     RL: DMA (Drug mechanism of action); PAC (Pharmacological
     activity); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (mediation by different receptor types of sufentanil-related
        respiratory depression and antinociception)
     111555-53-4 HCAPLUS
RN
CN
     4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
     7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
     (CA INDEX NAME)
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RETABLE					
Referenced Author	Year	VOL	PG	Referenced Work	Referenced
			(RPG)		File
Adams, J	+====- 1990				
	11993			Anesthesiology	
	11996				HCAPLUS
	11979			Advances in Pain Res	•
	11982	•		Pain	!
	1984	•		Proc Natl Acad Sci U	ו ו ארא סד ווכ
· ·	11992	•	•	International Narcot	•
	1988		1138	J Clin Monit	!
	11987			Progress in Opioid R	!
	11994	•		Regul Pept	!
	11985			J Pharmacol Exp Ther	IHCAPLUS
	11986			J Pharmacol Exp Ther	
	1978			Fed Proc	İ
	11984			Central and Peripher	HCAPLUS
	1990			Opioids in Anesthesi	
	1990			Goodman and Gilman's	
	1982	•	763	Br J Anaesth	[
	1978	49	244	Anesthesiology	HCAPLUS
	1988	67	435		HCAPLUS
Leysen, J	1983	187	209	Eur J Pharmacol	HCAPLUS
Ling, G	1985	232	149	J Pharmacol Exp Ther	HCAPLUS
Liu-Chen, L	1987	132	321	Mol Pharmacol	HCAPLUS
Martin, W	1976	1197	517	J Pharmacol Exp Ther	HCAPLUS
Martin, W	1981	128	1547	Mini-Symposium II Mu	HCAPLUS
Morin-Surun, M	1984	I 98	1241	Eur J Pharmacol	HCAPLUS
	1987			Applied Respiratory	
	1999		1396	Mol Pharm	HCAPLUS
	1991		85	Anaesthesia	l
•	1983	•	•	Eur J Pharmacol	1
·	1988			•	HCAPLUS
	1988		•	•	HCAPLUS
	1994	•	•		HCAPLUS
	1987			•	HCAPLUS
The state of the s	1982			•	HCAPLUS
·	1981	•	•	•	HCAPLUS
	1988		405	J Pharmacol Exp Ther	
	11989				HCAPLUS
•	11988			Anesthesiology	
			841		MEDLINE
Strandling, J	1985	21	317	Bull Eur Physiother	

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Takemori, A
                       |1992 |32
                                   1239
                                          |Annu Rev Pharmacol T|HCAPLUS
Valentino, R
                       |1983 |32
                                   12887
                                          |Life Sci
                                                                | HCAPLUS
                       |1911 |142
                                          |Pflugers Arch ges Ph|
van Leersum, E
                                   | 377
Vaught, J
                       |1982 |30
                                   11443
                                          |Life Sci
                                                                IHCAPLUS
Ward, S
                       11982 | 180
                                   1377
                                          |Eur J Pharmacol
                                                                LHCAPLUS
Ward, S
                       11983 | 187
                                   11
                                          |Eur J Pharmacol
                                                                IHCAPLUS
Ward, S
                       11982 18
                                   1388
                                          | Proc Soc Neurosci
                       11982 I
Wauquier, A
                                   178
                                          |Alfentanil
Yaksh, T
                       |1983 |226
                                   1303
                                          | J Pharmacol Exp Ther | HCAPLUS
    ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
L83
ΑN
     2002:762005 HCAPLUS
DN
     138:331550
     Dependence studies of new compounds in the rhesus monkey, rat and mouse
TΙ
     (2001)
ΑU
    Aceto, M. D.; Bowman, E. R.; Harris, L. S.; Kipps, B. R.; May, E. L.
    Department of Pharmacology and Toxicology, School of Medicine, Medical
CS
     College of Virginia of Virginia Commonwealth University, Richmond, VA, USA
SO
    NIDA Research Monograph (2002), 182 (Problems of Drug Dependence
     2001), 157-209
     CODEN: MIDAD4; ISSN: 0361-8595
PB
    National Institute on Drug Abuse
DT
     Journal
LA
    English
AΒ
    Thirty-three compds. were submitted for testing by the Biol. Coordinator
     of the University of Maryland School of Pharmacy. All compds. except
     (\gamma)-hydroxybutyric acid, caffeine, lobeline, and agmatine were
     unknown to the testers when submitted. Compds. were tested in various
     ways for activity and dependence liability, including substitution-for-
    morphine test, precipitated-withdrawal test, and primary-phys.-dependence study
     in monkeys and rats, and antinociception tests in mice. These studies
     were conducted under the auspices of the Drug Evaluation Committee in
     association with the College on Problems of Drug Dependence.
CC
    1-11 (Pharmacology)
IT
    Opioids
    RL: ADV (Adverse effect, including toxicity); PAC
     (Pharmacological activity); THU (Therapeutic use); BIOL (Biological
     study); USES (Uses)
        (drug dependence studies of new compds. in the rhesus monkey, rat and
       mouse)
ΙT
     90-69-7, Lobeline
                         502-85-2, \gamma-Hydroxybutyric acid sodium salt
               2482-00-0, Agmatine sulfate
                                                            113590-09-3
     1421-32-5
                                               50915-69-0
     131733-92-1, NCS-382 142036-44-0 142036-52-0
                                                        177185-73-8
     220662-95-3
                   321594-10-9 342884-62-2
                                             514826-67-6
                   515835-93-5
                                 515835-94-6
                                               515835-95-7
    515835-91-3
     515835-96-8
                   515835-97-9
                                 515835-98-0
                                               515835-99-1
                                                              515836-00-7
     515836-01-8
                   515836-02-9
                                 515836-04-1
                                               515836-06-3
                                                              515836-07-4
     515836-08-5
                   515836-10-9
                                 515836-11-0
                                               515836-12-1
                                                              518027-28-6,
     (+)-Oripavine
                   518052-04-5, NIH 11026
    RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
    activity); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (drug dependence studies of new compds. in the rhesus monkey, rat and
        mouse)
IT
    342884-62-2 515835-91-3
    RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological
    activity); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (drug dependence studies of new compds. in the rhesus monkey, rat and
        mouse)
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RN 342884-62-2 HCAPLUS

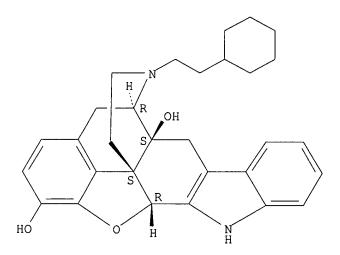
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 5,6,7,8,14,14b-hexahydro-7-(2-methyl-2-propenyl)-, (4bS,8R,8aS,14bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 515835-91-3 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(2-cyclohexylethyl)-5,6,7,8,14,14b-hexahydro-, monohydrochloride, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RETABLE

Referenced Author (RAU)	Year	Referenced Work (RWK) =+============	Referenced File
Aceto, M	1969 36 225	Br J Pharmacol	HCAPLUS
Aceto, M	1978 50 203	Eur J Pharmacol	HCAPLUS
Aceto, M	1977 15 1	Pharmacol	MEDLINE

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gembeh - 10 / 520809
Atwell, L
                       11978 | 7
                                    142
                                           |Lab Animal
                                           |Doctoral Dissertatio|
Deneau, G
                       |1956 |
                                    1
Dewey, W
                                           | J Pharmacol Exp Ther | HCAPLUS
                       |1970 |175
                                   1435
Dewey, W
                       |1971 |179
                                   1652
                                          | J Pharmacol Exp Ther | HCAPLUS
                                   174
                                          | J Pharmacol Exp Ther
D'Amour, F
                       |1941 |72
                       |1953 |107
                                   1385
                                          | J Pharmacol Exp Ther | HCAPLUS
Eddy, N
Jacobson, A
                       |1965 |8
                                   1563
                                          | J Med Chem
                                                                IHCAPLUS
                      |1966 |154
                                   1319
                                          | J Pharmacol Exp Ther | HCAPLUS
Pearl, J
                       11947 |2
                                   |189
Schild, M
                                          |Br J Pharmacol
                       11936 | 56
                                   |147
                                          | J Pharmacol Exp Ther | HCAPLUS
Seevers, M
                                   1565
                                           |Physiological Pharma|
Seevers, M
                       |1963 |I
Tallarida, R
                       |1987 |
                                    153
                                           |Manual of pharmacolo|
                                           | J Pharmacol Exp Ther | MEDLINE
Teiger, D
                       |1974 |190
                                  |408
    ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     2002:762004 HCAPLUS
DN
     138:331549
TΙ
     Evaluation of new compounds for opioid activity (2001)
AU
     Woods, J. H.; Traynor, J. R.
     The Drug Abuse Basic Research Program, Departments of Pharmacology and
CS
     Psychology, University of Michigan, Ann Arbor, MI, USA
     NIDA Research Monograph (2002), 182 (Problems of Drug Dependence
SO
     2001), 139-153
     CODEN: MIDAD4; ISSN: 0361-8595
```

- PB National Institute on Drug Abuse
- DT Journal
- English LA
- This report contains information on opioid abuse liability evaluations on AΒ compds. that have been submitted to the Drug Evaluation Committee of the College and released for publication by the submitters. The information obtained usually involves in vitro evaluation in opioid binding assays. In addition, the compds. may be evaluated for discriminative and reinforcing effects. Analgesic and respiratory function assays are also possible. These behavioral assessments are conducted in rhesus monkeys (see Appendix). Usually when limited information is provided (e.g., in vitro assessment only), it is because the sample provided by the submitter was insufficient to carry out further evaluation.
- CC 1-11 (Pharmacology)
- IT Opioids

RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(evaluation of new compds. for opioid activity and receptor binding) 1421-32-5, NIH 11018 16676-29-2, Naltrexone hydrochloride IT 53152-21-9, Buprenorphine hydrochloride 109582-45-8 111469-81-9, Naltrindole hydrochloride 117332-69-1, Clocinnamox 142036-44-0, NIH 11014 142036-52-0, NIH 11013 131733-92-1, NCS-382 153611-34-8, BNTX 160625-41-2, NIH 10095 177185-73-8, NIH 10945 321594-10-9, NIH 10992 **342884-62-2**, NIH 10978 **515835-91-3**, NIH 10979 515835-93-5, NIH 10994 515835-95-7, NIH 515835-96-8, NIH 11004 515835-97-9, NIH 11005 515835-98-0, NIH 11003 515835-99-1, NIH 11007 515836-00-7, NIH 11011 515836-01-8, NIH 11006 515836-02-9, The vinone oxalate 515836-04-1, NIH 11020 515836-06-3, NIH 11021 515836-07-4, NIH 11022 515836-08-5, NIH 11023 515836-10-9, NIH 11025 515836-11-0, NIH 11028 515836-12-1, NIH 11037 518052-04-5, NIH 11026 RL: ADV (Adverse effect, including toxicity); BSU (Biological study,

unclassified); PAC (Pharmacological activity); THU

(Therapeutic use); BIOL (Biological study); USES (Uses)

(evaluation of new compds. for opioid activity and receptor binding)

Absolute stereochemistry.

● HCl

RN 342884-62-2 HCAPLUS CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 5,6,7,8,14,14b-hexahydro-7-(2-methyl-2-propenyl)-, (4bS,8R,8aS,14bR)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 515835-91-3 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
7-(2-cyclohexylethyl)-5,6,7,8,14,14b-hexahydro-, monohydrochloride,
(4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

● HCl

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K P.	ιд	. н	1.	H .

Referenced Author (RAU)	Year VO	L) (RPG)	Referenced Work Referenced (RWK) File
Bertalmio, A	11982 7	1289	J Pharmacol Meth HCAPLUS
Cheng, Y Clark, M	1973 22 1997 283	3099 501	Biochem Pharmacol HCAPLUS J Pharmacol Exp Ther HCAPLUS
Dykstra, L	1986 15	263	J Pharmacol Meth HCAPLUS
Emmerson, P France, C	1996 278 1989 250	1121 937	J Pharmacol Exp Ther HCAPLUS J Pharmacol Exp Ther HCAPLUS
France, C	11990 252	1600	J Pharmacol Exp Ther HCAPLUS
France, C	1990 328	1295	Progress in Clinical HCAPLUS
Howell, L Lee, K	1988 245 1999 378	364 323	J Pharmacol Exp Ther HCAPLUS Eur J Pharmacol HCAPLUS
Traynor, J	11995 47	1848	Mol Pharmacol HCAPLUS
Winger, G	1989 24	135	Drug and Alc Depend HCAPLUS
Zhu, J	1997 282	1676	J Pharmacol Exp Ther HCAPLUS

- L83 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 2002:581650 HCAPLUS
- DN 138:231585
- TI Effects of opioid antagonists on unconditioned and conditioned hyperactivity to morphine
- AU Rauhut, Anthony S.; Gehrke, Brenda J.; Phillips, Scott B.; Bardo, Michael T.
- CS Department of Psychology, University of Kentucky, Lexington, KY, 40506-0044, USA
- SO Pharmacology, Biochemistry and Behavior (2002), 73(3), 611-622 CODEN: PBBHAU; ISSN: 0091-3057
- PB Elsevier Science Inc.
- DT Journal
- LA English
- AB In a series of expts., the ability of selective $\mu-$ ($\beta-$ funaltrexamine, $\beta-FNA)$, $\delta-$ (naltrindole, nalt) and $\kappa-$

jan delaval - 15 june 2006

(nor-binaltorphimine, nor-BNI) opioid receptor antagonists to attenuate the unconditioned and conditioned hyperactive effects of morphine was examined For comparison, the nonselective opioid receptor antagonist naloxone (nalx) was also examined Locomotor activity served as the behavioral measure. Experiment 1 found that doses of 1 and 4, but not 16 mg/kg, of morphine effectively produced conditioned hyperactivity (CH). Expts. 2a-d found that $\beta\text{-FNA}$, nalt, nor-BNI and nalx, resp., attenuated unconditioned morphine-induced hyperactivity. Expts. 3a-c, however, found that none of the selective antagonists, given individually, attenuated CH. In contrast, nalx did attenuate CH (Experiment 3d). Collectively results suggest that the unconditioned and conditioned hyperactive responses to morphine are mediated by different receptor systems and that activation of multiple opioid-receptor subtypes mediate expression of CH.

CC 1-11 (Pharmacology)

IT 57-27-2, Morphine, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(effects of opioid antagonists on unconditioned and conditioned hyperactivity to morphine)

IT 72782-05-9, β -Funaltrexamine 105618-26-6, Nor-binaltorphimine 111555-53-4, Naltrindole

RL: PAC (Pharmacological activity); BIOL (Biological study) (effects of opioid antagonists on unconditioned and conditioned hyperactivity to morphine)

IT 57-27-2, Morphine, biological studies

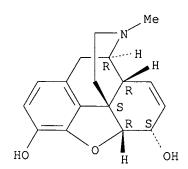
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(effects of opioid antagonists on unconditioned and conditioned hyperactivity to morphine)

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

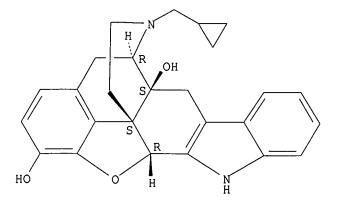


IT 111555-53-4, Naltrindole

RL: PAC (Pharmacological activity); BIOL (Biological study) (effects of opioid antagonists on unconditioned and conditioned hyperactivity to morphine)

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)



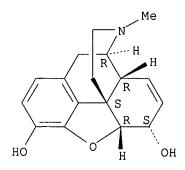
RETABLE Referenced Author (RAU)		(RVL)	(RPG)	Referenced Work (RWK) +===========	Referenced File
Ayhan, I		129	317		HCAPLUS
Babbini, M	11976	146	213	Br J Pharmacol	
Bals-Kubik, R	11993	1264	1489	J Pharmacol Exp Ther	HCAPLUS
Bardo, M	1995	119	139	Neurosci Biobehav Re	
Beatty, W	1983	19	1397	Pharmacol, Biochem B	HCAPLUS
Beninger, R	1986	38	1425	Life Sci	HCAPLUS
Bertalmio, A	1989	251	455	J Pharmacol Exp Ther	HCAPLUS
Braida, D	11994	271	1497	-	HCAPLUS
Broadbear, J	11994	1115	311	Psychopharmacology	HCAPLUS
Endoh, T	1992	316	130	Arch Int Pharmacodyn	HCAPLUS
Ettenberg, A	11982	178	204		HCAPLUS
Gold, L	11989	1	209	Behav Pharmacol	
Hand, T	11989	198			HCAPLUS
Horan, P	11992	1260	1237	J Pharmacol Exp Ther	HCAPLUS
•		152	216		HCAPLUS
Iwamoto, E	1986	16	327	Alcohol Drug Res	MEDLINE
				J Pharmacol Exp Ther	HCAPLUS
Jackson, H	1989		1427	Neuropharmacology	HCAPLUS
Kitchen, I	1990	100	685	Br J Pharmacol	HCAPLUS
Kitchen, I	1990		2321	New leads in opioid	
Koob, G	1984	229	481	J Pharmacol Exp Ther	HCAPLUS
McNamara, R	1992	108	1147	Psychopharmacology	HCAPLUS
Mucha, R	•	•	191	•	HCAPLUS
•			351	J Comp Physiol Psych	HCAPLUS
•	•		1274		HCAPLUS
<i>y</i> , .		•		J Pharmacol Exp Ther	HCAPLUS
			314		HCAPLUS
•	•		201		HCAPLUS
•	•		243		HCAPLUS
Piepponen, T	•		275	Pharmacol, Biochem B	
Rescorla, R			71		MEDLINE
•			77	Pharmacol, Biochem B	
	•				HCAPLUS
Shippenberg, T	•		351		HCAPLUS
·				Pharmacol, Biochem B	
•	•		163		HCAPLUS
· ·	•	•	1925	Pharmacol, Biochem B	
Wei, E	1973	128	35	Psychopharmacologia	HCAPLUS

L83 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

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AN
    2002:575294 HCAPLUS
DN
    137:135051
    Compositions and methods for optimizing UDP glucuronosyltransferase UGT2B7
TΙ
    drug substrate dosings and for predicting UGT2B7 drug substrate toxicity
    Ratain, Mark J.; Innocenti, Federico; Das, Soma; Iyer, Lalitha; Sawyer,
IN
    Michael
    University of Chicago, USA
PA
SO
    PCT Int. Appl., 160 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                 DATE
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    WO 2002059375
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                               20020801
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PΙ
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    WO 2002059375
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            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VN, YU, ZA, ZM, ZW
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
            KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB,
            GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA,
            GN, GQ, GW, ML, MR, NE, SN, TD, TG
    AU 2002240066
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                               20020806
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    US 2003099960
                         A1
                               20030529
                                           US 2002-57834
                                                                  20020125 <--
PRAI US 2001-264534P
                         Ρ
                               20010126 <--
    WO 2002-US2083
                         W
                               20020125 <--
    The invention concerns UGT2B7 and its ability to glucuronidate various
AΒ
    drugs, including epirubicin. It discloses methods and compns. for determining
    the level of UGT2B7 activity based on genetic composition, and consequently,
    allows dosing of UGT2B7-glucuronidated drugs to be improved or optimized
    based on a patient's level of predicted UGT2B7 activity. It further
    discloses methods of treatment in which UGT2B7 substrates are administered
    to patients as part of a treatment regimen.
IC
    ICM C12Q0001-68
CC
    1-2 (Pharmacology)
    Section cross-reference(s): 7
IT
    Opioids
    RL: ADV (Adverse effect, including toxicity); PAC
    (Pharmacological activity); THU (Therapeutic use); BIOL (Biological
    study); USES (Uses)
        (UDP glucuronosyltransferase UGT2B7 drug substrate dosing optimization
       and UGT2B7 drug substrate toxicity prediction)
ΙT
    57-27-2, Morphine, biological studies 56420-45-2, Epirubicin
    RL: ADV (Adverse effect, including toxicity); PAC
    (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use);
    BIOL (Biological study); USES (Uses)
        (UDP glucuronosyltransferase UGT2B7 drug substrate dosing optimization
       and UGT2B7 drug substrate toxicity prediction)
IT
    50-27-1, Estriol 53-41-8, Androsterone 53-86-1, Indomethacin
    56-75-7, Chloramphenicol
                               62-67-9, Nalorphine 64-19-7D, Acetic acid,
    derivs.
              69-72-7D, Salicylic acid, derivs. 76-41-5, Oxymorphone
    76-57-3, Codeine
                      77-07-6, Levorphanol 79-09-4D, Propionic acid,
    derivs.
             79-31-2D, Isobutyric acid, derivs. 99-66-1, Valproic acid
    103-82-2D, Phenylacetic acid, derivs. 302-79-4, all-trans-Retinoic acid
    465-65-6, Naloxone
                        466-97-7, Normorphine 466-99-9, Hydromorphone
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467-04-9D, Oripavine, derivs. 467-15-2, Norcodeine
                                                         468-10-0D,
     Morphinan, derivs. 481-30-1, Epitestosterone 525-66-6, Propranolol
     604-75-1, Oxazepam 846-50-4, Temazepam 882-09-7, Clofibric acid
     3131-23-5, 4-Hydroxyestrone 14357-78-9, Diprenorphine
                                                              15687-27-1,
     Ibuprofen 16590-41-3, Naltrexone 20594-83-6, Nalbuphine
     21256-18-8, Oxaprozin
                            22071-15-4, Ketoprofen
                                                     22204-53-1, Naproxen
     22494-42-4, Diflunisal 29679-58-1, Fenoprofen 30516-87-1, Zidovudine
     33005-95-7, Tiaprofenic acid 33369-31-2, Zomepirac 41340-25-4,
              51234-28-7, Benoxaprofen 52485-79-7, Buprenorphine
     55096-26-9, Nalmefene 56420-45-2D, Epirubicin, analogs
     4-Hydroxyestriol
                       78715-23-8, Norbuprenorphine 111555-53-4,
     Naltrindole
                 111555-58-9, Naltriben
     RL: ADV (Adverse effect, including toxicity); PAC
     (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (UDP glucuronosyltransferase UGT2B7 drug substrate dosing optimization
        and UGT2B7 drug substrate toxicity prediction)
ΙT
     57-27-2, Morphine, biological studies
     RL: ADV (Adverse effect, including toxicity); PAC
     (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use);
     BIOL (Biological study); USES (Uses)
        (UDP glucuronosyltransferase UGT2B7 drug substrate dosing optimization
        and UGT2B7 drug substrate toxicity prediction)
RN
     57-27-2 HCAPLUS
CN
     Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-
     (5\alpha, 6\alpha) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry. Rotation (-).



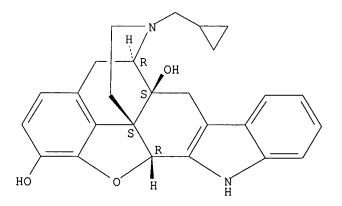
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IT 467-15-2, Norcodeine 20594-83-6, Nalbuphine
    111555-53-4, Naltrindole
    RL: ADV (Adverse effect, including toxicity); PAC
    (Pharmacological activity); THU (Therapeutic use); BIOL
    (Biological study); USES (Uses)
          (UDP glucuronosyltransferase UGT2B7 drug substrate dosing optimization and UGT2B7 drug substrate toxicity prediction)
RN 467-15-2 HCAPLUS
CN Morphinan-6-ol, 7,8-didehydro-4,5-epoxy-3-methoxy-, (5α,6α)-
    (9CI) (CA INDEX NAME)
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RN 20594-83-6 HCAPLUS CN Morphinan-3,6,14-triol, 17-(cyclobutylmethyl)-4,5-epoxy-, $(5\alpha,6\alpha)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 111555-53-4 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



L83 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 2000:875025 HCAPLUS

DN 134:172951

TI The role of opioid receptors in morphine withdrawal in the infant rat

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AU McPhie, A. A.; Barr, G. A.
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- CS Biopsychology Doctoral Program, Department of Psychology, Hunter College, City University of New York, New York, NY, 10021, USA
- SO Developmental Brain Research (2000), 124(1,2), 73-80 CODEN: DBRRDB; ISSN: 0165-3806
- PB Elsevier Science B.V.
- DT Journal
- LA English
- AB Exposure to opiates such as morphine can lead to psychol. and phys. dependence in both adult and infant humans. Infant rats experience opiate withdrawal behaviors that are qual. different from the withdrawal behaviors displayed by adult rats. In the adult, withdrawal is largely mediated by the μ -opioid receptor. We sought to understand more about what role each opioid receptor (μ , κ , and δ) plays in the display of the phys. withdrawal in the infant rat. Beginning on postnatal day 1, infant rats were injected with morphine sulfate twice a day for 6.5 days. On the afternoon of the seventh day the infant rats were given an i.c. injection of a vehicle, the μ -opioid receptor antagonist CTOP, the κ -opioid receptor antagonist nor-BNI, or the δ -opioid receptor antagonist naltrindole. CTOP precipitated withdrawal behaviors in the 7-day-old

rat in a dose-dependent manner. Neither nor-BNI nor naltrindole induced any significant changes in the frequency of the withdrawal behaviors. These data suggest that in the infant rat control of certain behavioral withdrawal signs is modulated primarily by the $\mu\text{-opioid}$ receptor, as is the case in the adult rat.

CC 1-11 (Pharmacology)

IT 57-27-2, Morphine, biological studies

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(role of opioid receptors in morphine withdrawal in infant rat) IT 103429-31-8, CTOP 105618-26-6, Nor-BNI 111555-53-4, Naltrindole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(role of opioid receptors in morphine withdrawal in infant rat)

IT 57-27-2, Morphine, biological studies

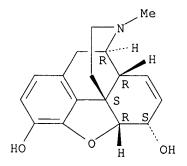
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)

(role of opioid receptors in morphine withdrawal in infant rat)

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



IT 111555-53-4, Naltrindole

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RL: BAC (Biological activity or effector, except adverse); BSU
(Biological study, unclassified); BIOL (Biological study)
(role of opioid receptors in morphine withdrawal in infant rat)
RN 111555-53-4 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
(CA INDEX NAME)
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Absolute stereochemistry.

Young, G

RETABLE Referenced Author (RAU)	Year	VOL (RVL)	PG	Referenced Work	Referenced
· ·				+======================================	
Barr, G	11986	129	1145	Dev Brain Res	HCAPLUS
Carden, S	11991	162	17	Dev Brain Res	IHCAPLUS
Cowan, A	11988	246	I 950	J Pharmacol Exp Ther	IHCAPLUS
De Vries, T	1990	154	63	<u>-</u>	HCAPLUS
Dinges, D	1980	209	619	Science	HCAPLUS
Fanselow, M	1988	31	431	Pharmacol Biochem Be	HCAPLUS
Finnegan, L	1985	4 4	2314		MEDLINE
Geller, L	1966	18	221	Psychol Rep	MEDLINE
Georges, F	1998	109	187	Dev Brain Res	HCAPLUS
Inturrisi, C	1997	19	1110	Semin Neurosci	HCAPLUS
Jones, K	1995	109	1189	Behav Neurosci	MEDLINE
Kornblum, H	1987	37	21	Dev Brain Res	HCAPLUS
Maldonado, R	1990	520	247	Brain Res	HCAPLUS
Maldonado, R	1992	31	1231	Neuropharmacology	HCAPLUS
Matthes, H	1996	383	819	Nature	HCAPLUS
McDowell, J	1987	12	397	Brain Res Rev	HCAPLUS
Nestler, E	1992	12	2439	J Neurosci	HCAPLUS
Oommen, A	1995	1	619	Analgesia	HCAPLUS
Rajegowda, B	1972	81	532	J Pediatr	MEDLINE
Rius, R	1991	58	237	Dev Brain Res	HCAPLUS
Simonin, F	1998	17	1886	EMBO J	HCAPLUS
Spanagel, R	1994	115	121	Psychopharmacology	HCAPLUS
Stevens, C	1989	166	467	Eur J Pharmacol	HCAPLUS
Suzuki, T	1992	213	91	Eur J Pharmacol	HCAPLUS
Suzuki, T	1990	13	s133	J Pharmacobio-Dyn	1
Szucs, M	1990	54	1419	J Neurochem	HCAPLUS
Thornton, S	11997	340	161	Eur J Pharmacol	HCAPLUS
Truijillo, K	•	13	915	New Biologist	1
Windh, R	1995	273	1361	J Pharmacol Exp Ther	HCAPLUS

|Pharmacol Biochem Be|HCAPLUS

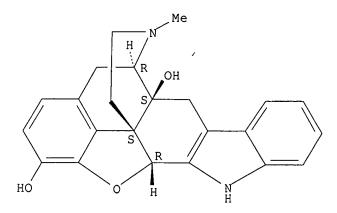
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|1985 |23

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Zhu, Y
                       |1998 |18
                                   12538
                                         |J Neurosci
                                                                | HCAPLUS
L83
    ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
AN
     1999:360622 HCAPLUS
DN
     131:179130
     Dependence studies of new compounds in the rhesus monkey, rat and mouse
TΙ
     Aceto, M. D.; Bowman, E. R.; Harris, L. S.; May, E. L.
ΑU
     Department of Pharmacology and Toxicology, Medical College of Virginia,
CS
     Virginia Commonwealth University, Richmond, VA, USA
     NIDA Research Monograph (1997), Volume Date 1996, 174 (Problems
SO
     of Drug Dependence 1996), 338-395
     CODEN: MIDAD4; ISSN: 0361-8595
PB
     National Institute on Drug Abuse
DT
     Journal; General Review
LA
     English
     A review, with 17 refs. Evaluation of opioid agonists and antagonists in
AΒ
     dependence-liability studies in rhesus monkeys, rat-infusion studies, and
     mouse-antinociception tests is presented with some new results.
CC
     1-0 (Pharmacology)
ΙT
     Opioids
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (dependence studies of opioids in rhesus monkey, rat and mouse)
                                             143-98-6, NIH 4591
IT
     64-31-3, NIH 0001
                        76-41-5, NIH 10323
                16030-39-0, NIH 10873
                                        16676-29-2, NIH 8503
     NIH 7890
                                                                31036-80-3, NIH
     10868
             67198-13-4, NIH 10533
                                     78123-71-4, NIH 10891
                                                              82824-01-9, NIH
     10894
             89352-67-0, NIH 10893
                                     94021-22-4, NIH 10854
                                                              100111-01-1, NIH
     10892
             105618-27-7, NIH 10588
                                     111469-84-2, NIH 10590
     111469-88-6, NIH 10842 111555-53-4, NIH 10589
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     124439-07-2, NIH 10672
                              156727-74-1, NIH 10815
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     240422-52-0, NIH 10856
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     240422-60-0, NIH 10865
     240422-64-4, NIH 10872
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (dependence studies of opioids in rhesus monkey, rat and mouse)
     111469-88-6, NIH 10842 111555-53-4, NIH 10589
ΙT
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); THU (Therapeutic use); BIOL (Biological study);
     USES (Uses)
        (dependence studies of opioids in rhesus monkey, rat and mouse)
RN
     111469-88-6 HCAPLUS
CN
     4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
     5,6,7,8,14,14b-hexahydro-7-methyl-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX
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Absolute stereochemistry.

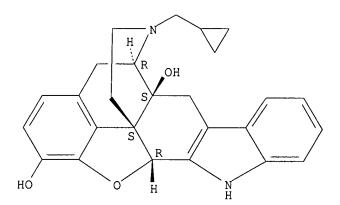
NAME)



RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RETABLE

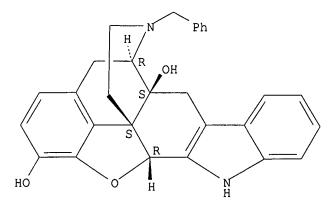
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Aceto, M 1969 Aceto, M 1978 Aceto, M 1977 Atwell, L 11978 Crain, S 11995 Deneau, G 11956 Dewey, W 11970 Dewey, W 11971 D'Amour, F 11941 Eddy, N 11953 Jacobson, A 11965 Pearl, J 11966 Schild, M 11947	+====================================	Br J Pharmacol HCAPLUS Eur J Pharmacol HCAPLUS Pharmacol MEDLINE Lab Animal Proc Natl Acad Sci Doctoral Dissertatio J Pharmacol Exp Ther HCAPLUS J Pharmacol Exp Ther HCAPLUS J Pharmacol Exp Ther HCAPLUS

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Teiger, D
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|1974 |190 |408 |J Pharmacol Exp Ther|MEDLINE

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L83 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
     1999:359362 HCAPLUS
ΑN
DN
     131:179678
     Evaluation of new compounds for opioid activity (1998)
ΤI
     Woods, J. H.; Winger, G.; Traynor, J. R.; Medzihradsky, F.; Smith, C. B.
ΑU
     Departments of Pharmacology and Biological Chemistry, University of
CS
     Michigan, Ann Arbor, MI, USA
     NIDA Research Monograph (1999), Volume Date 1998, 179 (Problems
SO
     of Drug Dependence, 1998), 365-380
     CODEN: MIDAD4; ISSN: 0361-8595
     National Institute on Drug Abuse
PΒ
DT
     Journal
LA
     English
     New compds. were tested for their opioid abuse liability by the Drug
AΒ
     Evaluation Committee of the College.
CC
     1-11 (Pharmacology)
ΙT
     Opioids
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (evaluation of new compds. for opioid activity)
ΙT
     122517-78-6
                  129468-30-0
                                 162549-77-1
                                               188607-09-2
                                                              188607-29-6
     188607-39-8
                   197242-25-4
                                 205375-36-6
                                               219927-14-7 219927-15-8
                   240415-26-3
                                 240415-29-6
                                               240415-30-9
                                                              240415-32-1
     240415-25-2
                                 240418-83-1
                                                240418-84-2
     240415-34-3
                   240418-82-0
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     240418-85-3
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     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (evaluation of new compds. for opioid activity)
     219927-15-8 240415-34-3
TΤ
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (evaluation of new compds. for opioid activity)
     219927-15-8 HCAPLUS
RN
     4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
CN
     5,6,7,8,14,14b-hexahydro-7-(phenylmethyl)-, monohydrochloride,
     (4bS, 8R, 8aS, 14bR) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

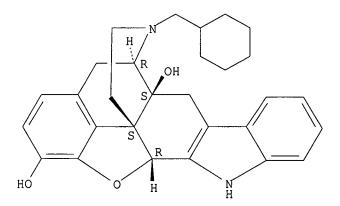


● HCl

RN 240415-34-3 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclohexylmethyl)-5,6,7,8,14,14b-hexahydro-, monohydrochloride, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

RETA	BLE
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Referenced Author (RAU)	Year VOL PG (RPY) (RVL) (RPG	Referenced Work 	Referenced File
Bertalmio, A	1982 7 289	J Pharmacol Meth	HCAPLUS
Cheng, Y	1973 22 3099	Biochem Pharmacol	HCAPLUS
Clark, M	1988 148 343	Eur J Pharmacol	HCAPLUS
Clark, M	1987 26 1763	Neuropharmacol	HCAPLUS
Dykstra, L	1986 15 263	J Pharmacol Meth	HCAPLUS
Emmerson, P	1994 271 1630	J Pharmacol Exp The	r HCAPLUS
France, C	1989 250 937	J Pharmacol Exp The	r HCAPLUS
France, C	1990 252 600	J Pharmacol Exp The	r HCAPLUS

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France, C
                       11990 1328
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                                           |Progress in Clinical|HCAPLUS
                       |1988 |245 |364
                                           | J Pharmacol Exp Ther | HCAPLUS
Howell, L
Medzihradsky, F
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                                   167
                                           | J Pharmacol Meth
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Medzihradsky, F
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                                                                IHCAPLUS
                       |1972 |61
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Perrine, T
                                           | J Pharm Sci
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                       |1986 |76
                                   1288
Smith, C
                                           |NIDA Res Monogr
Smith, C
                       |1989 |
                                   165
                                           |The International Na|HCAPLUS
Solomon, R
                       |1982 |21
                                   11329
                                          |Neuropharmacol
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Winger, G
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                                           |Drug and Alc Depend | HCAPLUS
                                           |Mechanisms of Pain a|HCAPLUS
Woods, J
                       |1979 |
                                    |429
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- L83 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN
- AN 1998:557203 HCAPLUS
- DN 130:90325
- ΤI Opioid inhibition of rat medial vestibular nucleus neurons in vitro and its dependence on age
- Roslan Sulaiman, M.; Dutia, M. B. ΑU
- Department of Physiology, Medical School, Teviot Place, Edinburgh, EH8 CS 9AG, UK
- SO Experimental Brain Research (1998), 122(2), 196-202 CODEN: EXBRAP; ISSN: 0014-4819
- PB Springer-Verlag
- DT Journal
- LA English
- Extracellular and whole-cell patch clamp intracellular recordings were AΒ made from rat medial vestibular nucleus (MVN) neurons in vitro, and their responses to selective $\mu\text{--},\ \kappa\text{--}$ and $\delta\text{--opioid}$ receptor agonists and antagonists were examined Of 127 neurons tested, the large majority were inhibited in a dose-dependent manner by the δ -opioid receptor agonists [d-Ala2, d-Leu5]-enkephalin (DADLE) and [d-Pen2, Pen5]-enkephalin (DPLPE). The μ -opioid receptor agonist morphine and the κ -receptor agonist U50,488 did not affect the tonic discharge rate of any of the 63 MVN cells tested. The δ -receptor antagon ist naltrindole effectively antagonized the inhibitory effects of DADLE and DPLPE. Weak excitatory responses to high doses of DADLE were seen in only two MVN cells. These results demonstrate the presence of δ - but not μ - or κ -opioid receptors on tonically active MVN neurons. Whole-cell intracellular recordings from MVN cells in a current clamp showed that the DADLE-induced inhibition was accompanied by membrane hyperpolarization and decrease in input resistance, while voltage clamp expts. showed that DADLE induced an outward membrane current that was reduced but not abolished by 20 mM tetraethylammonium bromide. Thus the mechanisms of action of DADLE in inhibiting MVN cells involve the potentiation of outward K currents, in a similar way to the effects of opioids in other areas of brain. The inhibitory effects of DADLE increased linearly with age, so that the responses to DADLE in the youngest animals used here (60-80 g, approx. 3 wk of age) were relatively small, increasing significantly over the following 2-3 wk. This age-dependence may be due to post-natal changes in the d. of δ -opiate receptors or the efficacy of the signalling pathways activated by them in the MVN cells over this time. CC
- 1-11 (Pharmacology)
- IT Opioids

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(opioid inhibition of rat medial vestibular nucleus neurons in vitro and its dependence on age)

ΙT 57-27-2, Morphine, biological studies 71-91-0, Tetraethylammonium bromide 63631-40-3, DADLE 67198-13-4,

88373-72-2 **111555-53-4**, Naltrindole U50488 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (opioid inhibition of rat medial vestibular nucleus neurons in vitro and its dependence on age) ΙT 57-27-2, Morphine, biological studies 63631-40-3, DADLE 111555-53-4, Naltrindole RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (opioid inhibition of rat medial vestibular nucleus neurons in vitro and its dependence on age) RN 57-27-2 HCAPLUS CN Morphinan-3, 6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha, 6\alpha)$ - (9CI) (CA INDEX NAME)

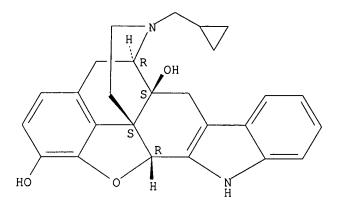
Absolute stereochemistry. Rotation (-).

RN 63631-40-3 HCAPLUS
CN D-Leucine, L-tyrosyl-D-alanylglycyl-L-phenylalanyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 111555-53-4 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.



(RAU)	Year (RPY)	(RVL)	(RPG)	(RWK)	Referenced File
	+===== 1987		+===== 409		+======== HCAPLUS
	•		1203	•	MEDLINE
Cameron, S		•	12595		MEDLINE
•			1668		HCAPLUS
-	•		1121	-	HCAPLUS
- ·	· ·		-	•	•
Coleman, P			1218	•	HCAPLUS
	•			· • •	MEDLINE
•	•		1466		HCAPLUS
•	•	•		•	HCAPLUS
· · ·				. •	HCAPLUS
				•	HCAPLUS
3 *	•	•	541	·	HCAPLUS
-			•		MEDLINE
•			61		HCAPLUS
•	•		17	•	HCAPLUS
				•	HCAPLUS
	•		1588	· ± ±	HCAPLUS
		•	1299	Br J Pharmacol	
	1983	•	463	Development of the a	
			99	•	HCAPLUS
Lu, Y	1995	73	670	Can J Physiol Pharma	HCAPLUS
•		11	173		HCAPLUS
Mosberg, H	1983	180	5871	Proc Natl Acad Sci U	HCAPLUS
		311	109	Brain Res	HCAPLUS
	1980	26	1047	Life Sci	HCAPLUS
Saika, T	1993		237	Mol Brain Res	HCAPLUS
Schlosser, B	11995	191	126	Neurosci Lett	MEDLINE
Serafin, M	1991	8 4	1417	Exp Brain Res	MEDLINE
Shippenberg, T	1995	1280	155	Eur J Pharmacol	HCAPLUS
Smith, P	1	16	117	Brain Res Brain Res	HCAPLUS
Smith, P	11989	14	155	Brain Res Brain Res	MEDLINE
Smith, P	11992	17	183	Brain Res Brain Res	HCAPLUS
Suarez-Roca, H	11993	264	1648	J Pharmacol Exp Ther	HCAPLUS
Sulaiman, M	11997	504P	1166	J Physiol (Lond)	Ī
Travagli, R	11995	74			MEDLINE
					HCAPLUS
•				Proc Natl Acad Sci U	
	•	•	1443		HCAPLUS

- L83 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN AN 1997:409124 HCAPLUS DN 127:75928
- TI Segmental effects on motor function following different intrathecal receptor agonists and antagonists in rabbits
- AU Borgbjerg, F. M.; Frigast, C.
- CS The Pain Clinic, Bispebjerg Hospital, University of Copenhagen, Frederiksberg, Den.
- SO Acta Anaesthesiologica Scandinavica (1997), 41(5), 586-594 CODEN: AANEAB; ISSN: 0001-5172
- PB Munksqaard
- DT Journal
- LA English
- AB The occurrence of motor impairment after intrathecal drug administration is infrequently reported in the literature and the methods of determining motor function vary. Motor function was examined in rabbits after a wide dose range of a variety of intrathecally administered opioid agonists, α-adrenergic agonists, non-competitive NMDA antagonists, a benzodiazepine agonist, a sigma agonist, paracetamol, isotonic and acidified saline. The opioids, sigma agonist and NMDA antagonists were addnl. examined following pretreatment with naloxone. The opioid antagonists naltrindole and MR2266 (δ - and κ -opioid receptor antagonists, resp.) were administered before the δ agonist and the κ agonist. The $\alpha 2$ -adrenergic antagonist yohimbine was given before administration of dexmedetomidine and xylazine. Motor function was evaluated by a five-point scale of motor impairment ranging from normal function to total paralysis of the hindlegs. DPDPE (δ agonist), paracetamol, naloxone, naltrindole, yohimbine, isotonic and acidified saline did not affect motor function. MR2266 produced minor motor impairment. The α -adrenergic agonist dexmedetomidine reduced motor function slightly and dose independently. The remaining compds. affected motor function in a dose-dependent fashion. High doses of morphine produced hypersensitivity and myoclonus. An irreversible paralysis of the hindlegs was observed following intrathecal administration of the sigma agonist SKF10047 in high doses. Naloxone and MR2266 attenuated the effects of U50488H (κ agonist). The present results reveal a dose-dependent reduction in motor function after intrathecal administration of some of the investigated compds. The mechanisms behind these effects appear to be multifactorial.
- CC 1-11 (Pharmacology)
- IT Opioid antagonists

Opioids

IΤ

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(segmental effects on motor function following different intrathecal receptor agonists and antagonists in rabbits)

57-27-2, Morphine, biological studies 103-90-2, Paracetamol 146-48-5, Yohimbine 465-65-6, Naloxone 6740-88-1 7361-61-7, Xylazine 14198-28-8, SKF 10047 33643-49-1, (+)-Ketamine 54340-58-8, Meptazinol 56649-76-4, MR 2266 59467-70-8, Midazolam 83913-06-8, U 50488H 88373-73-3 111555-53-4, Naltrindole 113775-47-6, Dexmedetomidine

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(segmental effects on motor function following different intrathecal receptor agonists and antagonists in rabbits)

IT 57-27-2, Morphine, biological studies 88373-73-3
111555-53-4, Naltrindole

RL: ADV (Adverse effect, including toxicity); BAC
 (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (segmental effects on motor function following different intrathecal receptor agonists and antagonists in rabbits)
RN 57-27-2 HCAPLUS
CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl (5α,6α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 88373-73-3 HCAPLUS

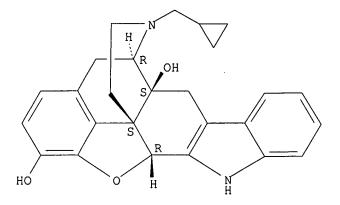
CN D-Valine, L-tyrosyl-3-mercapto-D-valylglycyl-L-phenylalanyl-3-mercapto-, cyclic $(2\rightarrow 5)$ -disulfide (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Acalovschi, I
Caudle, R 1987 435 1 Brain Res HCAPLUS
Cousins, M 1988 955 Neural blockade in c Crawford, M 1993 70 642 Br J Anaesth MEDLINE Drewdy, E 1973 52 839 Anesth Analg Faden, A 1983 91 321 Eur J Pharmacol HCAPLUS Fernandez-Galinski, S 1996 40 39 Acta Anaesthesiol Sc HCAPLUS Fisher, B 1991 192 221 Eur J Pharmacol HCAPLUS Glynn, C 1995 64 337 Pain Gordh, T 1988 32 702 Acta Anaesthesiol Sc Grace, D 1994 73 628 Br J Anaesth MEDLINE Groudine, S 1995 82 292 Anesthesiology MEDLINE
Crawford, M 1993 70 642 Br J Anaesth MEDLINE Drewdy, E 1973 52 839 Anesth Analg Faden, A 1983 91 321 Eur J Pharmacol HCAPLUS Fernandez-Galinski, S 1996 40 39 Acta Anaesthesiol Sc HCAPLUS Fisher, B 1991 192 192 221 Eur J Pharmacol HCAPLUS Glynn, C 1995 64 337 Pain Gordh, T 1988 32 702
Drewdy, E 1973 52 839 Anesth Analg Faden, A 1983 91 321 Eur J Pharmacol HCAPLUS Fernandez-Galinski, S 1996 40 139 Acta Anaesthesiol Sc HCAPLUS Fisher, B 1991 192 1221 Eur J Pharmacol HCAPLUS Glynn, C 1995 64 337 Pain Road Road
Faden, A 1983 91 321 Eur J Pharmacol HCAPLUS Fernandez-Galinski, S 1996 40 39 Acta Anaesthesiol Sc HCAPLUS Fisher, B 1991 192 1221 Eur J Pharmacol HCAPLUS Glynn, C 1995 64 337 Pain Gordh, T 1988 32 702 Acta Anaesthesiol Sc Grace, D 1994 73 628 Br J Anaesth MEDLINE Groudine, S 1995 82 292 Anesthesiology MEDLINE
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Fisher, B 1991 192 221 Eur J Pharmacol HCAPLUS 1995 64 337 Pain
Glynn, C 1995 64 337 Pain Gordh, T 1988 32 702 Acta Anaesthesiol Sc Grace, D 1994 73 628 Br J Anaesth MEDLINE Groudine, S 1995 82 292 Anesthesiology MEDLINE
Gordh, T 1988 32 702 Acta Anaesthesiol Sc Grace, D 1994 73 628 Br J Anaesth MEDLINE Groudine, S 1995 82 292 Anesthesiology MEDLINE
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Hertz, A 1970 9 539 Neuropharmacol
Hill, D 1995 50 415 Anaesthesia MEDLINE
Jacobson, L 1990 43 141 Pain MEDLINE
Jensen, F 1988 43 747 Life Sci HCAPLUS
Klepper, I 1987 59 1147 Br J Anaesth HCAPLUS
Kristensen, J 1994 56 59 Pain HCAPLUS
Leblanc, P 1988 193 1405 JAVMA HCAPLUS
Madsen, J 1993 37 307 Acta Anaesthesiol Sc MEDLINE
Miaskowski, C 1991 553 105 Brain Res HCAPLUS
Mollenholt, P 1988 32 95 Pain HCAPLUS
Nasstrom, J 1992 212 21 Eur J Pharmacol MEDLINE
Palacios, Q 1991 38 24 Can J Anaesth MEDLINE
Parkinson, S 1990 72 743 Anesthesiology MEDLINE
Plummer, J 1992 49 145 Pain HCAPLUS
Rigoli, M 1983 69 Clinical pharmacolog
Spampinato, S 1988 35 95 Pain HCAPLUS
Stevens, C 1986 238 838 J Pharmacol Exp Ther
Tiseo, P 1993 236 89 Eur J Pharmacol HCAPLUS
Tung, A 1981 6 91 Reg Anaesth
Wang, J 1979 50 149 Anesthesiology MEDLINE
Woolf, C 1981 209 491 Brain Res HCAPLUS
Yaksh, T 1981 11 293 Pain HCAPLUS
Yanez, A 1990 29 359 Neuropharmacology HCAPLUS

L83 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

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ΑN
    1997:407072 HCAPLUS
    127:104221
DN
     Differential effects of naltrindole on morphine-induced tolerance and
ΤI
    physical dependence in rats
    Hepburn, Matthew J.; Little, Patrick J.; Gingras, Jeanine; Kuhn, Cynthia
ΑU
CS
     Departments of Pharmacology and Pediatrics, Duke University Medical
     Center, Durham, NC, 27710, USA
     Journal of Pharmacology and Experimental Therapeutics (1997),
SO
     281(3), 1350-1356
     CODEN: JPETAB; ISSN: 0022-3565
PB
    Williams & Wilkins
DT
     Journal
LA
    English
    This study investigated the effect of delta opioid receptor blockade by
AΒ
    naltrindole on the development of phys. dependence and tolerance to the
     antinociceptive and respiratory depressive effects of morphine in rats.
     Chronic morphine was delivered either by s.c. injection of increasing
     amts. of morphine over 5 days or by s.c. implantation of morphine pellets.
    Animals were cotreated with saline or naltrindole. Antinociception and
     respiratory depression were assessed after administration of a challenge
     dose or morphine, and withdrawal signs were determined after naloxone
     challenge. Naltrindole significantly attenuated the development of
     antinociceptive tolerance after all three chronic treatment regimens.
     addition, rats pretreated with naltrindole displayed significantly fewer
     withdrawal symptoms and less weight loss after a naloxone challenge. In
     contrast, naltrindole did not prevent the development of tolerance to
     morphine-induced respiratory depression. These results imply that
     tolerance to antinociception and phys. dependence involves adaptations at
     interacting mu and delta receptor populations, whereas tolerance to
     respiratory depression reflects actions of independent mu and delta
     receptor populations. These findings suggest that delta antagonists may
     have potential clin. application for decreasing the rapid development of
     tolerance to opiate-induced analgesia, while allowing for the development
     of protective tolerance to respiratory depression.
CC
     1-11 (Pharmacology)
     57-27-2, Morphine, biological studies
ΙT
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (delta opioid antagonist naltrindole effects on tolerance to
        opiate-induced analgesia and respiratory depression)
ΙT
     111555-53-4, Naltrindole
     RL: BAC (Biological activity or effector, except adverse); BSU
     (Biological study, unclassified); BIOL (Biological study)
        (delta opioid antagonist naltrindole effects on tolerance to
        opiate-induced analgesia and respiratory depression)
     57-27-2, Morphine, biological studies
IT
     RL: ADV (Adverse effect, including toxicity); BAC (Biological
     activity or effector, except adverse); BSU (Biological study,
     unclassified); BIOL (Biological study)
        (delta opioid antagonist naltrindole effects on tolerance to
        opiate-induced analgesia and respiratory depression)
RN
     57-27-2 HCAPLUS
     Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl-
CN
     (5\alpha, 6\alpha) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry. Rotation (-).

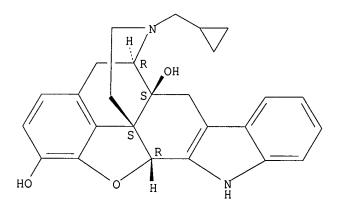
IT 111555-53-4, Naltrindole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (delta opioid antagonist naltrindole effects on tolerance to opiate-induced analgesia and respiratory depression)

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L83 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:482971 HCAPLUS

DN 125:185592

TI Evaluation of new compounds for opioid activity (1995)

AU Woods, J. H.; Medzihradsky, F.; Smith, C. B.; Butelman, E. R.; Winger, G.

CS Department Pharmacology, University Michigan, Ann Arbor, MI, USA

SO NIDA Research Monograph (1996), 162 (Problems of Drug Dependence, 1995), 377-407

CODEN: MIDAD4; ISSN: 0361-8595

PB National Institute on Drug Abuse

DT Journal

LA English

AB This report contains information on opioid abuse liability evaluations on compds. that have been submitted to the Drug Evaluation Committee of the College and released for publication by the submitters. The information obtained can involve both in vitro evaluation in opioid binding assays and smooth muscle prepns. In addition, the compds. may be evaluated for

discriminative and reinforcing effects. Analgesic and respiratory function assays are also possible. The behavioral assessments are conducted in rhesus monkeys.

CC 1-11 (Pharmacology)

IT Opioids

IT

TΤ

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (evaluation of new compds. for opioid activity in relation to abuse

liability and analgesic activity and effect on respiratory function)

510-66-7, Metathebainone 1477-40-3 2149-70-4, N ω -Nitro-L-arginine 2183-56-4 34758-83-3, Zipeprol 50903-99-6, N ω -Nitro-L-arginine methyl ester 54934-75-7 55708-52-6

96917-41-8 **111469-88-6**, Oxymorphindole 123931-04-4

180989-09-7 180989-10-0

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

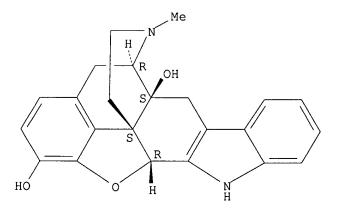
(evaluation of new compds. for opioid activity in relation to abuse liability and analgesic activity and effect on respiratory function) 111469-88-6, Oxymorphindole

RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(evaluation of new compds. for opioid activity in relation to abuse liability and analgesic activity and effect on respiratory function)

RN 111469-88-6 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
5,6,7,8,14,14b-hexahydro-7-methyl-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L83 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:670486 HCAPLUS

DN 123:74784

TI Antagonism at delta opioid receptors blocks cocaine's, but not morphine's, enhancement of responding for intracranial stimulation

AU Hubbell, Christopher L.; Reid, Larry D.

- CS Laboratory Psychopharmacology, Rensselaer Polytechnic Institute, Troy, NY, 12180-3590, USA
- SO Experimental and Clinical Psychopharmacology (1995), 3(2), 123-8 CODEN: ECLPES; ISSN: 1064-1297
- PB American Psychological Association
- DT Journal
- LA English
- AB Rats were fixed with a chronically indwelling bipolar electrode for direct elec. stimulation of the medial forebrain bundle as it courses through the lateral hypothalamus. In Experiment 1, the rats were trained to self-stimulate (i.e., lever press) at each of 3 intensities of intracranial stimulation (ICS) for 10 min daily. In Experiment 2, only 2 intensities were offered. After stable daily rates of responding for each intensity of ICS were established, rats received either cocaine (5 or 10 mg/kg) or morphine (4 mg/kg) daily. Both cocaine and morphine significantly increased rates of responding. Naltrindole (NTI; 10 mg/kg) reduced rats' rates of responding under cocaine to those observed under vehicle. NTI had very little impact on morphine's effects. These data support the conclusion that selective δ opioid receptor antagonists may be useful for treating cocaine addiction.
- CC 1-11 (Pharmacology)
- TT 50-36-2, Cocaine 57-27-2, Morphine, biological studies RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(delta opioid antagonists effect on cocaine and morphine enhancement of responding for intracranial stimulation)

IT **111555-53-4**, Naltrindole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(delta opioid antagonists effect on cocaine and morphine enhancement of responding for intracranial stimulation)

IT 57-27-2, Morphine, biological studies

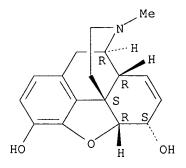
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(delta opioid antagonists effect on cocaine and morphine enhancement of responding for intracranial stimulation)

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

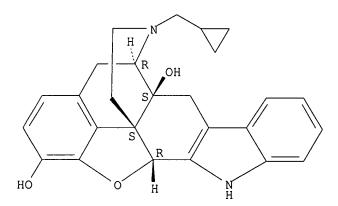


IT **111555-53-4**, Naltrindole

RL: BAC (Biological activity or effector, except adverse); BSU

(Biological study, unclassified); THU (Therapeutic use); BIOL
(Biological study); USES (Uses)
 (delta opioid antagonists effect on cocaine and morphine enhancement of responding for intracranial stimulation)
RN 111555-53-4 HCAPLUS
CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol,
 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI)
 (CA INDEX NAME)

Absolute stereochemistry.



L83 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:259411 HCAPLUS

DN 122:46304

TI The novel and highly selective $\delta\text{-opioid}$ antagonist TIPP(ψ) attenuates morphine tolerance and dependence: comparison with the effects of naltrindole and TIPP

AU Fundytus, M. E.; Schiller, P. W.; Shapiro, M.; Weltrowska, G.; Coderre, T. J.

CS Pain Mechanisms Chem. biol. Peptide Res. Labs., Clin. Res. Inst. Montreal, Montreal, QC, Can.

SO Regulatory Peptides (1994), 54(1), 97-8 CODEN: REPPDY; ISSN: 0167-0115

PB Elsevier

DT Journal

LA English

The purpose of the study was to verify the specific involvement of δ -opioid receptors in the development of morphine tolerance and dependence by comparing the effects of naltrindole and the 2 highly selective δ -opioid antagonists, TIPP and TIPP[Ψ], in rats treated chronically with morphine. All 3 δ -opioid antagonists attenuated the severity of precipitated withdrawal symptoms, and TIPP[Ψ], but not naltrindole or TIPP, also attenuated the development of analgesic tolerance. These results suggest that the development of opioid tolerance and dependence may be minimized by combined μ -opioid agonist and δ -opioid antagonist treatment.

CC 1-11 (Pharmacology)

IT 57-27-2, Morphine, biological studies
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

 $(\delta\text{-opioid antagonists attenuation of morphine tolerance and dependence)$

TT 57-27-2, Morphine, biological studies
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

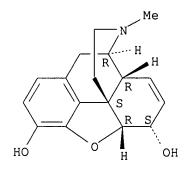
(S-opioid antagonists attemuation of morphine tolerance and

 $(\delta\text{-opioid}$ antagonists attenuation of morphine tolerance and dependence)

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ -(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



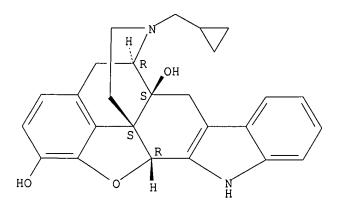
IT 111555-53-4, Naltrindole

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study) (δ -opioid antagonists attenuation of morphine tolerance and dependence)

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



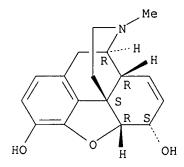
L83 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2006 ACS on STN

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1994:672189 HCAPLUS
ΑN
DN
     121:272189
ΤI
    Delta opioid receptor antagonists to block opioid agonist tolerance and
     dependence
ΙN
     Portoghese, Philip S.; Takemori, Akira E.
PΑ
    Regents of the University of Minnesota, USA
SO
     U.S., 13 pp.
     CODEN: USXXAM
DT
     Patent
LA
     English
FAN.CNT 1
     PATENT NO.
                       KIND
                               DATE
                                          APPLICATION NO.
                                                                 DATE
     ------
                        ----
                               -----
                                           -----
    US 5352680
                         Α
                               19941004
                                          US 1992-914448
                                                                 19920715 <--
PRAI US 1992-914448
                               19920715 <--
    MARPAT 121:272189
AB
    A therapeutic method is provided to alleviate the tolerance to, or
    dependence on, an opiate analgesic (morphine, codeine, etc.) by the
    administration of an effective amount of a selective \delta opioid receptor
    antagonist (Markush included) to a human patient in need of such
     treatment. The effect of naltrindole and naltrindole 5'isothiocyanate on
     μ opioid receptors and on the development of morphine tolerance and
     dependence in mice chronically treated with morphine are described.
     ICM A61K0031-485
INCL 514279000
     1-11 (Pharmacology)
    Section cross-reference(s): 4
ΙT
    Opioids
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological
     study)
        (δ opioid receptor antagonists to block opioid agonist tolerance
        and dependence)
IT
    Opioids
    RL: ADV (Adverse effect, including toxicity); BIOL (Biological
     study)
        (μ-, δ opioid receptor antagonists to block opioid agonist
       tolerance and dependence)
IT
     57-27-2, Morphine, biological studies
                                            57-42-1, Meperidine
     64-31-3, Morphine sulfate 76-41-5, Oxymorphone 76-42-6, Oxycodone
     76-57-3, Codeine 76-99-3, Methadone 77-07-6, Levorphanol 125-29-1,
    Hydrocodone
                 143-52-2, Metopon 437-38-7, Fentanyl
                                                          466-99-9,
    Hydromorphone 469-62-5, Propoxyphene 561-27-3, Diacetyl morphine
     639-46-3, Morphine-N-oxide 639-47-4, Heterocodeine
                                                           915-30-0,
     Diphenoxylate 1477-40-3, Levacetylmethadol 33522-95-1, Noroxymorphone
     41135-98-2
                 51931-66-9, Tilidine
                                        56030-54-7, Sufentanil
                                                                 71195-58-9,
    Alfentanil
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological
        (δ opioid receptor antagonists to block opioid agonist tolerance
        and dependence)
     111555-53-4, Naltrindole 126876-64-0, Naltrindole
ΙT
     5'-isothiocyanate
     RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
        (\delta opioid receptor antagonists to block opioid agonist tolerance
        and dependence)
TT
     57-27-2, Morphine, biological studies
     RL: ADV (Adverse effect, including toxicity); BIOL (Biological
     study)
        (\delta opioid receptor antagonists to block opioid agonist tolerance
        and dependence)
```

RN 57-27-2 HCAPLUS

CN Morphinan-3,6-diol, 7,8-didehydro-4,5-epoxy-17-methyl- $(5\alpha,6\alpha)$ - (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



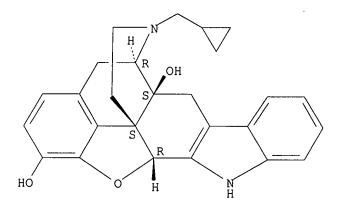
IT 111555-53-4, Naltrindole

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (δ opioid receptor antagonists to block opioid agonist tolerance and dependence)

RN 111555-53-4 HCAPLUS

CN 4,8-Methanobenzofuro[2,3-a]pyrido[4,3-b]carbazole-1,8a(9H)-diol, 7-(cyclopropylmethyl)-5,6,7,8,14,14b-hexahydro-, (4bS,8R,8aS,14bR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



=> => fil medline embase

FILE 'MEDLINE' ENTERED AT 09:05:16 ON 15 JUN 2006

FILE 'EMBASE' ENTERED AT 09:05:16 ON 15 JUN 2006 Copyright (c) 2006 Elsevier B.V. All rights reserved.

=> d all tot

L111 ANSWER 1 OF 5 MEDLINE on STN DUPLICATE 1

AN 1999349505 MEDLINE

DN PubMed ID: 10422643

TI Modulation of emesis by fentanyl and opioid receptor antagonists in Suncus

jan delaval - 15 june 2006

reserved on STN

- AN 2003123629 EMBASE
- TI Preclinical and clinical studies on naltrexone: What have they taught each other?.
- AU Froehlich J.; O'Malley S.; Hyytia P.; Davidson D.; Farren C.
- CS Dr. J. Froehlich, Indiana Univ. School of Medicine, IB 424, 975 W. Walnut Street, Indianapolis, IN 46202-5124, United States. jcfroehli@iupui.edu
- SO Alcoholism: Clinical and Experimental Research, (1 Mar 2003) Vol. 27, No. 3, pp. 533-539. .

Refs: 36

ISSN: 0145-6008 CODEN: ACRSDM

- CY United States
- DT Journal; Conference Article
- FS 037 Drug Literature Index
 - 038 Adverse Reactions Titles
 - O40 Drug Dependence, Alcohol Abuse and Alcoholism
- LA English
- SL English
- ED Entered STN: 3 Apr 2003
 - Last Updated on STN: 3 Apr 2003
- Proceedings of a symposium at the 2002 RSA/ISBRA Meeting in San Francisco, AΒ California; organized and co-chaired by Janice C. Froehlich and Stephanie O'Malley. The presentations were (1) Introduction, by Janice C. Froehlich and Stephanie O'Malley; (2) Preclinical studies on naloxone: genetics and site of action, by Petri Hyytia; (3) Clinical studies on naltrexone for treating hazardous drinkers, by Dena Davidson; (4) Clinical studies on naltrexone and sertraline in the treatment of alcohol dependence, by Conor Farren; and (5) Discussion by Janice D. Froehlich, Stephanie O'Malley, and Rainer Spanagel. Both preclinical and clinical studies are critical in the development of effective pharmacotherapeutic approaches for the treatment of alcoholism. Nowhere has this been more evident than in the development of naltrexone for the treatment of alcohol relapse. As research continues on the optimal use of naltrexone for modifying alcohol intake, a number of factors have emerged that are likely to determine the efficacy of naltrexone as a pharmacotherapeutic agent for the treatment of alcoholism. Some of these factors include dose, frequency and duration of treatment, pattern and severity of alcohol drinking prior to initiation of naltrexone treatment, genetic aspects of responsive subpopulations, degree of alcohol craving, and susceptibility to adverse effects of naltrexone. New, as well as established, animal models are being used to determine the parameters that optimize the ability of naltrexone to modify alcohol drinking in acute and chronic alcohol access paradigms, under conditions of intermittent versus continuous alcohol intake, and in populations that vary in genetic predisposition toward alcohol drinking. Current clinical studies are exploring the ability of naltrexone to alter alcohol drinking when delivered in combination with pharmacotherapeutic agents that act on nonopioid transmitter systems and the difference in efficacy of naltrexone when administered in populations that differ in drinking frequency and intensity, family history of alcoholism, and alcohol craving. This symposium presented new research findings from both preclinical and clinical studies with the aim of facilitating the development of treatment regimens that optimize the therapeutic potential of naltrexone in the treatment of alcoholism.
- CT Medical Descriptors:
 - *alcoholism: DT, drug therapy
 - *alcoholism: TH, therapy

drug efficacy

relapse

drug research

```
disease severity
genetic predisposition
drug potency
drug effect
dose response
behavior therapy
  nausea: SI, side effect
anxiety disorder: SI, side effect
headache: SI, side effect
insomnia: SI, side effect
fatigue: SI, side effect
vertigo: SI, side effect
treatment outcome
drug indication
drug tolerability
abstinence
drug potentiation
human
nonhuman
clinical trial
conference paper
priority journal
Drug Descriptors:
*naltrexone: AE, adverse drug reaction
*naltrexone: CT, clinical trial
*naltrexone: CB, drug combination
*naltrexone: IT, drug interaction
*naltrexone: DT, drug therapy
*naltrexone: PD, pharmacology
*opiate antagonist: AE, adverse drug reaction
*opiate antagonist: CT, clinical trial
*opiate antagonist: CB, drug combination
*opiate antagonist: IT, drug interaction
*opiate antagonist: DT, drug therapy
*opiate antagonist: PD, pharmacology
naloxone: DT, drug therapy
naloxone: PD, pharmacology
naloxone: SC, subcutaneous drug administration
dextro phenylalanylcysteinyltyrosyl dextro tryptophylornithylthreonylpenic
illaminylthreoninamide 2,7 disulfide: DO, drug dose
dextro phenylalanylcysteinyltyrosyl dextro tryptophylornithylthreonylpenic
illaminylthreoninamide 2,7 disulfide: DT, drug therapy
dextro phenylalanylcysteinyltyrosyl dextro tryptophylornithylthreonylpenic
illaminylthreoninamide 2,7 disulfide: PD, pharmacology
dextro phenylalanylcysteinyltyrosyl dextro tryptophylornithylthreonylpenic
illaminylthreoninamide 2,7 disulfide: CE, intracerebral drug
administration
  naltrindole: DO, drug dose
  naltrindole: DT, drug therapy
  naltrindole: PD, pharmacology
 naltrindole: CE, intracerebral drug administration
alcohol
placebo
sertraline: CT, clinical trial
sertraline: IT, drug interaction
sertraline: DT, drug therapy
sertraline: PD, pharmacology
fluoxetine: PD, pharmacology
(naltrexone) 16590-41-3, 16676-29-2; (naloxone) 357-08-4, 465-65-6;
(dextro phenylalanylcysteinyltyrosyl dextro tryptophylornithylthreonylpeni
```

RN

cillaminylthreoninamide 2,7 disulfide) 103429-31-8; (naltrindole) 111555-53-4; (alcohol) 64-17-5; (sertraline) 79617-96-2; (fluoxetine) 54910-89-3, 56296-78-7, 59333-67-4 L111 ANSWER 3 OF 5 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights reserved on STN ΑN 2002241557 EMBASE Cough: Potential pharmacological developments. ΤI ΑU Chung K.F. CS Dr. K.F. Chung, National Heart and Lung Institute, Imperial College, Royal Brompton/Harefield NHS Trust, Dovehouse Street, London SW3 6LY, United Kingdom. f.chung@ic.ac.uk Expert Opinion on Investigational Drugs, (2002) Vol. 11, No. 7, pp. SO 955-963. . Refs: 79 ISSN: 1354-3784 CODEN: EOIDER CYUnited Kingdom DT Journal; General Review FS 011 Otorhinolaryngology 015 Chest Diseases, Thoracic Surgery and Tuberculosis 030 Pharmacology 037 Drug Literature Index 038 Adverse Reactions Titles LAEnglish SL English Entered STN: 25 Jul 2002 ED Last Updated on STN: 25 Jul 2002 AΒ Cough is an important defensive reflex of the upper airway and is also a very common symptom of respiratory disease. Cough following an upper respiratory viral infection is transient, and persistent cough is associated with a whole range of conditions, such as asthma, rhino-sinusitis and gastro-oesophageal reflux. Treatment directed at these conditions may improve the associated cough. There is often a need, however, to control cough itself whatever the cause. The most effective drugs in this class are the opioids, such as morphine, codeine or pholcodeine, but at effective doses they have side effects including drowsiness, nausea, constipation and physical dependence. Investigations into the cough reflex and into the potential mechanisms of sensitised cough reflex have uncovered several potential targets for novel drugs. New opioids apart from μ -agonists such as κ - and δ -receptor agonists, have been developed, in addition to non-opioids such as nociceptin. Neurokinin receptor antagonists, bradykinin receptor antagonists, vanniloid receptor VR-1 antagonists may be beneficial by blocking effects of tachykinins and sensory nerve activation. Local anaesthetics, blockers of sodium-dependent channels and maxi-K Ca(2+)-dependent channel activators of afferent nerves are inhibitors of the cough reflex. Some of these novel agents may act centrally or peripherally or at both sites as antitussives. Large scale trials of these novel compounds have not been carried out in cough in man but there is a serious need for more effective antitussives devoid of side effects. CTMedical Descriptors: *coughing: DT, drug therapy

*coughing: ET, etiology symptomatology respiratory tract disease upper respiratory tract infection virus infection disease association asthma

rhinosinusitis

```
gastroesophageal reflux
     drug efficacy
     dose response
     drowsiness: SI, side effect
       nausea: SI, side effect
     constipation: SI, side effect
     drug dependence: SI, side effect
     drug targeting
     drug mechanism
     sensory stimulation
     drug antagonism
     respiration depression: SI, side effect
     diuresis
     sedation
     human
     nonhuman
     clinical trial
     animal experiment
     animal model
     controlled study
     review
CT
    Drug Descriptors:
     *antitussive agent: AE, adverse drug reaction
     *antitussive agent: CT, clinical trial
     *antitussive agent: CB, drug combination
     *antitussive agent: DV, drug development
     *antitussive agent: DO, drug dose
     *antitussive agent: IT, drug interaction
     *antitussive agent: DT, drug therapy
     *antitussive agent: PD, pharmacology
     *antitussive agent: IH, inhalational drug administration
     *antitussive agent: IA, intraarterial drug administration
     *antitussive agent: CV, intracerebroventricular drug administration
     *antitussive agent: IV, intravenous drug administration
     *antitussive agent: TP, topical drug administration
     opiate: AE, adverse drug reaction
     opiate: DO, drug dose
     opiate: DT, drug therapy
     pholcodeine: AE, adverse drug reaction
    pholcodeine: DO, drug dose
    pholcodeine: DT, drug therapy
    morphine: AE, adverse drug reaction
    morphine: DO, drug dose
    morphine: DT, drug therapy
     codeine: AE, adverse drug reaction
     codeine: CB, drug combination
     codeine: DO, drug dose
     codeine: IT, drug interaction
     codeine: DT, drug therapy
    mu opiate receptor agonist: AE, adverse drug reaction
    mu opiate receptor agonist: DV, drug development
    mu opiate receptor agonist: DT, drug therapy
    mu opiate receptor agonist: PD, pharmacology
    mu opiate receptor agonist: TP, topical drug administration
     kappa opiate receptor agonist: AE, adverse drug reaction
     kappa opiate receptor agonist: DV, drug development
     kappa opiate receptor agonist: DT, drug therapy
     kappa opiate receptor agonist: PD, pharmacology
     delta opiate receptor agonist: AE, adverse drug reaction
     delta opiate receptor agonist: DV, drug development
```

```
delta opiate receptor agonist: DT, drug therapy
delta opiate receptor agonist: PD, pharmacology
anandamide: PD, pharmacology
nociceptin: AE, adverse drug reaction
nociceptin: DV, drug development
nociceptin: DT, drug therapy
nociceptin: EC, endogenous compound
nociceptin: PD, pharmacology
nociceptin: CV, intracerebroventricular drug administration
nociceptin: IV, intravenous drug administration
tachykinin receptor antagonist: DT, drug therapy
tachykinin receptor antagonist: PD, pharmacology
bradykinin antagonist: DT, drug therapy
bradykinin antagonist: PD, pharmacology
tachykinin: EC, endogenous compound
local anesthetic agent: DT, drug therapy
local anesthetic agent: PD, pharmacology
local anesthetic agent: IH, inhalational drug administration
sodium channel blocking agent: CT, clinical trial
sodium channel blocking agent: DT, drug therapy
sodium channel blocking agent: PD, pharmacology
sodium channel blocking agent: IH, inhalational drug administration
sodium channel blocking agent: IA, intraarterial drug administration
potassium channel stimulating agent: DT, drug therapy
potassium channel stimulating agent: PD, pharmacology
furosemide: DT, drug therapy
furosemide: PD, pharmacology
furosemide: IH, inhalational drug administration
diuretic agent: DT, drug therapy
diuretic agent: PD, pharmacology
diuretic agent: IH, inhalational drug administration
phosphodiesterase IV inhibitor: DT, drug therapy
phosphodiesterase IV inhibitor: PD, pharmacology
corticosteroid: DT, drug therapy
corticosteroid: IH, inhalational drug administration
leukotriene receptor blocking agent: DT, drug therapy
17 methylnalorphine: CB, drug combination
17 methylnalorphine: IT, drug interaction
tyrosyl dextro arginylglycyl 4 nitrophenylalanylprolinamide: DT, drug
therapy
tyrosyl dextro arginylglycyl 4 nitrophenylalanylprolinamide: PD,
pharmacology
tyrosyl dextro arginylglycyl 4 nitrophenylalanylprolinamide: TP, topical
drug administration
  naltrindole: DT, drug therapy
  naltrindole: PD, pharmacology
resiniferatoxin: CM, drug comparison
resiniferatoxin: DV, drug development
resiniferatoxin: DT, drug therapy
resiniferatoxin: PD, pharmacology
delta opiate receptor antagonist: DV, drug development
delta opiate receptor antagonist: DT, drug therapy
delta opiate receptor antagonist: PD, pharmacology
delta opiate receptor antagonist: PO, oral drug administration
levdropropizine: CM, drug comparison
levdropropizine: DT, drug therapy
levdropropizine: PD, pharmacology
dextromethorphan: CM, drug comparison
dextromethorphan: DT, drug therapy
capsazepine: CM, drug comparison
```

```
capsazepine: DV, drug development
     capsazepine: DT, drug therapy
     capsazepine: PD, pharmacology
     unindexed drug
     unclassified drug
RN
     (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (morphine) 52-26-6, 57-27-2;
     (codeine) 76-57-3; (anandamide) 94421-68-8; (nociceptin) 170713-75-4;
     (furosemide) 54-31-9; (17 methylnalorphine) 4121-75-9; (tyrosyl dextro
     arginylglycyl 4 nitrophenylalanylprolinamide) 88331-14-0; (
     naltrindole) 111555-53-4; (resiniferatoxin) 57444-62-9;
     (levdropropizine) 99291-24-4; (dextromethorphan) 125-69-9, 125-71-3;
     (capsazepine) 138977-28-3
L111 ANSWER 4 OF 5 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
     reserved on STN
AN
     2002296969 EMBASE
TI
     Opioid antagonists: A review of their role in palliative care, focusing on
     use in opioid-related constipation.
ΑU
     Choi Y.S.; Billings J.A.
     Dr. J.A. Billings, MGH Palliative Care Service, FND 600, 55 Fruit Street,
CS
     Boston, MA 02114, United States
SO
     Journal of Pain and Symptom Management, (2002) Vol. 24, No. 1, pp. 71-90.
     Refs: 207
     ISSN: 0885-3924 CODEN: JPSMEU
PUI
    S 0885-3924(02)00424-4
CY
    United States
DΤ
     Journal; General Review
     030
FS
             Pharmacology
     037
             Drug Literature Index
     038
             Adverse Reactions Titles
    048
             Gastroenterology
LA
    English
    English
SL
    Entered STN: 5 Sep 2002
ED
    Last Updated on STN: 5 Sep 2002
AΒ
    Opioid antagonists have well-established indications in the reversal of
    life-threatening opioid toxicity, but also hold considerable promise for
    other applications in palliative care practice, particularly management of
    opioid-related constipation. We briefly review current understanding of
    opioid receptors, focusing on their complex role in gastrointestinal
    physiology. We summarize the pharmacology, conventional indications, and
    clinical usage of three major groups of opioid antagonists, including a
    promising new peripherally acting agent, methylnaltrexone, which is not
     commercially available. We suggest an approach to administering opioid
    antagonists for reduction of life-threatening opioid toxicity in patients
    with pain. The literature on opioid-induced constipation and its
    treatment with opioid-antagonists is reviewed in detail. Finally, other
    potential uses of opioid antagonists in palliative care are described,
    especially strategies for reducing such opioid side effects as
    nausea and pruritus and for improving analgesia or reducing
    tolerance by concomitantly administrating both an opioid agonist and low
    dosages of an antagonist.
CT
    Medical Descriptors:
    *palliative therapy
    drug mechanism
    pain: DT, drug therapy
    constipation: DT, drug therapy
    constipation: SI, side effect
      nausea: DT, drug therapy
```

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nausea: SI, side effect
pruritus: DT, drug therapy
pruritus: SI, side effect
analgesia
drug effect
gastrointestinal motility
intestine function
human
nonhuman
review
Drug Descriptors:
*opiate: AE, adverse drug reaction
*opiate: TO, drug toxicity
*opiate: PD, pharmacology
*opiate antagonist: DT, drug therapy
*opiate antagonist: PD, pharmacology
*17 methylnaltrexone: DT, drug therapy
*17 methylnaltrexone: PD, pharmacology
delta opiate receptor: EC, endogenous compound
kappa opiate receptor: EC, endogenous compound
mu opiate receptor: EC, endogenous compound
morphine: DO, drug dose
morphine: PD, pharmacology
morphine: TL, intrathecal drug administration
morphine: SC, subcutaneous drug administration
sufentanil: PD, pharmacology
pethidine: PD, pharmacology
enkephalin[2 dextro alanine 4 methylphenylalanine 5 glycine]: PD,
pharmacology
enkephalin[2,5 dextro penicillamine]: PD, pharmacology
enkephalin[2 dextro alanine 5 dextro leucine]: PD, pharmacology
leucine enkephalin[2 dextro serine 6 threonine]: PD, pharmacology
butorphanol: PD, pharmacology
bremazocine: PD, pharmacology
spiradoline: PD, pharmacology
3,4 dichloro n methyl n [2 (1 pyrrolidinyl)cyclohexyl]benzeneacetamide:
PD, pharmacology
naloxone: PK, pharmacokinetics
naloxone: PD, pharmacology
naloxone: IM, intramuscular drug administration
naloxone: IV, intravenous drug administration
naloxone: SC, subcutaneous drug administration
naltrexone: PK, pharmacokinetics
naltrexone: PD, pharmacology
naltrexone: PO, oral drug administration
beta funaltrexamine: PD, pharmacology
naloxonazine: PD, pharmacology
  naltrindole: PD, pharmacology
naltriben: PD, pharmacology
norbinaltorphimine: PD, pharmacology
fentanyl: PD, pharmacology
pentazocine: PD, pharmacology
nalbuphine: PD, pharmacology
buprenorphine: PD, pharmacology
nalmefene: PK, pharmacokinetics
nalmefene: PD, pharmacology
nalmefene: IM, intramuscular drug administration
nalmefene: IV, intravenous drug administration
nalmefene: PO, oral drug administration
nalmefene: SC, subcutaneous drug administration
```

```
unindexed drug
    nalorphine
     (opiate) 53663-61-9, 8002-76-4, 8008-60-4; (17 methylnaltrexone)
RN
     83387-25-1; (morphine) 52-26-6, 57-27-2; (sufentanil) 56030-54-7;
     (pethidine) 28097-96-3, 50-13-5, 57-42-1; (enkephalin[2 dextro alanine 4
    methylphenylalanine 5 glycine]) 78123-71-4; (enkephalin[2,5 dextro
    penicillamine]) 88373-73-3, 88381-29-7; (enkephalin[2 dextro alanine 5
     dextro leucine]) 63631-40-3; (leucine enkephalin[2 dextro serine 6
     threonine]) 75644-90-5; (butorphanol) 42408-82-2; (bremazocine)
     75684-07-0; (spiradoline) 87151-85-7; (3,4 dichloro n methyl n [2 (1
    pyrrolidinyl)cyclohexyl]benzeneacetamide) 67198-13-4; (naloxone) 357-08-4,
     465-65-6; (naltrexone) 16590-41-3, 16676-29-2; (beta funaltrexamine)
     72782-05-9; (naloxonazine) 82824-01-9; (naltrindole)
     111555-53-4; (naltriben) 111555-58-9; (norbinaltorphimine)
     105618-26-6; (fentanyl) 437-38-7; (pentazocine) 359-83-1, 64024-15-3;
     (nalbuphine) 20594-83-6, 23277-43-2; (buprenorphine) 52485-79-7,
     53152-21-9; (nalmefene) 55096-26-9; (nalorphine) 1041-90-3, 57-29-4,
     62-67-9
    U 50488; Narcan; Lethidrone; Revia; Revex
L111 ANSWER 5 OF 5 EMBASE COPYRIGHT (c) 2006 Elsevier B.V. All rights
     reserved on STN
     92153592 EMBASE
DN
     1992153592
TΙ
    The opioid peptides of the amphibian skin.
ΑU
     Erspamer V.
CS
     Inst of Medical Pharmacology III, University 'La Sapienza', Citta
     Universitaria,00100 Rome, Italy
SO
     International Journal of Developmental Neuroscience, (1992) Vol. 10, No.
     1, pp. 3-30.
     ISSN: 0736-5748 CODEN: IJDND6
CY
    United Kingdom
DT
     Journal; General Review
FS
     030
             Pharmacology
     037
             Drug Literature Index
     038
             Adverse Reactions Titles
LA
     English
ΕD
     Entered STN: 13 Jun 1992
    Last Updated on STN: 13 Jun 1992
CT
    Medical Descriptors:
    *amphibia
     *peptide analysis
     *skin
     akinesia: ET, etiology
     analgesic activity
    blood pressure
     cardiovascular response
     catalepsy: ET, etiology
     dose response
     drinking behavior
     drug effect
     drug withdrawal
    headache: SI, side effect
    hormone release
    human
    human experiment
     intestine motility
     intracerebroventricular drug administration
     intramuscular drug administration
```

```
intrathecal drug administration
intravenous drug administration
mouse
muscle rigidity: ET, etiology
  nausea: SI, side effect
nociception
nonhuman
normal human
plasma renin activity
pulse rate
rabbit
rat
review
seizure: ET, etiology
skin tingling: SI, side effect
stomach acid secretion
subcutaneous drug administration
thermoregulation
urine retention: SI, side effect
  vomiting: SI, side effect
Drug Descriptors:
mu opiate receptor
*deltorphin: PD, pharmacology
*deltorphin: DO, drug dose
*deltorphin: CM, drug comparison
*deltorphin: AN, drug analysis
*dermorphin: PD, pharmacology
*dermorphin: PK, pharmacokinetics
*dermorphin: TO, drug toxicity
*dermorphin: DO, drug dose
*dermorphin: CM, drug comparison
*dermorphin: AD, drug administration
*dermorphin: AE, adverse drug reaction
*opiate peptide: EC, endogenous compound
angiotensin: EC, endogenous compound
beta endorphin: CM, drug comparison
bombesin: EC, endogenous compound
bradykinin: EC, endogenous compound
ceruletide: EC, endogenous compound
dynorphin: CM, drug comparison
enkephalin: CM, drug comparison
gastrin: EC, endogenous compound
hypophysis hormone: EC, endogenous compound
kassinin: EC, endogenous compound
litorin: EC, endogenous compound
morphine: CM, drug comparison
naloxone: PD, pharmacology
  naltrindole: PD, pharmacology
pentazocine: CM, drug comparison
physalaemin: EC, endogenous compound
piperazinedione: EC, endogenous compound
sauvagine: EC, endogenous compound
somatostatin
(deltorphin) 119975-64-3; (dermorphin) 77614-16-5; (angiotensin)
11128-99-7, 1407-47-2; (beta endorphin) 59887-17-1; (bombesin) 31362-50-2;
(bradykinin) 58-82-2, 5979-11-3; (ceruletide) 17650-98-5; (dynorphin)
74913-18-1; (gastrin) 9002-76-0; (hypophysis hormone) 85883-81-4;
(kassinin) 63968-82-1; (litorin) 55749-97-8; (morphine) 52-26-6, 57-27-2;
(naloxone) 357-08-4, 465-65-6; (naltrindole) 111555-53-4
; (pentazocine) 359-83-1, 64024-15-3; (physalaemin) 2507-24-6;
```

RN

(piperazinedione) 29990-68-9; (sauvagine) 74434-59-6; (somatostatin) 38916-34-6, 51110-01-1

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SET COST OFF
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FILE 'HCAPLUS' ENTERED AT 07:59:48 ON 15 JUN 2006
L1
              1 S US20060052409/PN OR (US2005~520809# OR WO2003-JP8751 OR JP200
                 E TORAY/PA, CS
                 E KAWAI/AU
                 E KAWAI K/AU
            227 S E3, E4
L2
                 E KAWAI KOJI/AU
            227 S E3-E6
L3
                 E KAWAI NAME/AU
             22 S E4
L4
                 E KOJI/AU
L5
              1 S E39
L6
              1 S E83
                 E SAITO/AU
            349 S E3-E6
L7
F8
             16 S E49, E50
                 E SAITO NAME/AU
L9
            133 S E4
                 E AKIYOSHI/AU
L10
              5 S E129
                 E SUZUKI/AU
L11
             12 S E3
                 E SUZUKI T/AU
L12
           3764 S E3-E9
                 E SUZUKI TOMOHIKO/AU
L13
            145 S E3
                 E SUZUKI NAME/AU
            228 S E4
L14
                 E TOMOHIKO/AU
L15
              1 S E9
                 E HASEBE/AU
L16
             38 S E57
            132 S E02
L17
                 E HASEBE NAME/AU
                 E KO/AU
L18
              2 S E3
                 E KO H/AU
L19
            248 S E3-E17
                 E KO NAME/AU
L20
             30 S E4
                 E SUZUKI TSUTOMU/AU
L21
            792 S E3-E5
                 E TSUTOMU/AU
L22
              2 S E3
              2 S E36
L23
                 E TSUTOMU S/AU
                 SEL RN L1
     FILE 'REGISTRY' ENTERED AT 08:05:14 ON 15 JUN 2006
L24
             11 S E1-E11
L25
                 STR
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L26
              50 S L25
L27
           1550 S L25 FUL
                 SAV L27 GEMBEH520/A
L28
                 STR L25
L29
               1 S L28 SAM SUB=L27
L30
              14 S L28 FUL SUB=L27
                 SAV L30 GEMBEH520A/A
L31
                 STR L28
L32
              49 S L31 SAM SUB=L27
L33
             985 S L31 FUL SUB=L27
                 SAV L33 GEMBEH520B/A
L34
               9 S L24 NOT L30, L33
L35
               2 S L24 NOT L34
L36
                 STR L28
L37
                 STR L36
L38
              1 S L37 CSS SAM SUB=L30
L39
             14 S L37 CSS FUL SUB=L30
                 SAV L39 GEMBEH520C/A
L40
                 STR L37
               6 S L40 CSS SAM SUB=L33
L41
            208 S L40 CSS FUL SUB=L33
L42
                 SAV L42 GEMBEH520D/A
L43
            222 S L39, L42
     FILE 'HCAOLD' ENTERED AT 08:39:39 ON 15 JUN 2006
L44
               1 S L43
                 SEL AN
                 EDIT E12 /AN /OREF
     FILE 'HCAPLUS' ENTERED AT 08:40:19 ON 15 JUN 2006
L45
               2 S E12
L46
               1 S L45 NOT BEYER ?/AU
L47
             416 S L43
L48
             10 S L47 AND L1-L23
L49
               9 S L47 AND TORAY?/PA,CS
L50
              17 S L1, L48, L49
                 E NAUSEA/CT
                 E E3=ALL
                 E NAUSEA/CT
                 E E3+ALL
L51
           1394 S E2
                 E E4+ALL
L52
           2960 S E2
L53
           2889 S E3/BI OR E4/BI
L54
           8785 S E7/BI
                 E E5+ALL
L55
           3139 S E6
L56
           4436 S ANTIEMETI? OR ANTINAUSEA? OR ANTI() (EMETI? OR NAUSEA?)
                 E NAUSEA
L57
            9023 S E3-E14, E16-E21, E24, E31
                 E VOMIT/CT
L58
           2961 S E4-E6
                 E E4+ALL
                 E VOMIT
          10982 S E3-E19, E22-E27
L59
L60
               4 S L47 AND L51-L59
               1 S L47 AND (A61P001-08 OR A61P0001-08)/IPC, IC, ICM, ICS, ICA, ICI
L61
L62
               4 S L60, L61
L63
               1 S L50 AND L62
L64
               4 S L62, L63
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L65
             16 S L50 NOT L64
     FILE 'REGISTRY' ENTERED AT 08:49:02 ON 15 JUN 2006
L66
              1 S MORPHINE/CN
L67
             28 S C17H19NO3/MF AND 4766.1.6/RID
L68
             27 S L67 AND MORPHIN?
L69
             27 S L66, L68
     FILE 'HCAPLUS' ENTERED AT 08:50:16 ON 15 JUN 2006
L70
           2789 S L69 (L) ADV/RL
L71
             15 S L70 AND L47
L72
             11 S L43 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL AND L71
L73
             14 S L64, L72
L74
              4 S L71 NOT L73
L75
              2 S L74 NOT (2002:466697 OR 2000:68481)/AN
L76
             16 S L73, L75
L77
             11 S L76 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
L78
              5 S L76 NOT L77
L79
            349 S L47 AND (PY<=2003 OR PRY<=2003 OR AY<=2003)
L80
            204 S L79 AND L43 (L) (THU OR PAC OR PKT OR DMA OR BAC)/RL
                E OPIODS/CT
L81
           2461 S E68+OLD, NT (L) ADV/RL
L82
             13 S L81 AND L80
L83
             19 S L77, L82
     FILE 'REGISTRY' ENTERED AT 08:56:23 ON 15 JUN 2006
     FILE 'HCAPLUS' ENTERED AT 08:56:39 ON 15 JUN 2006
L84
              1 S L46 AND L47
     FILE 'HCAOLD' ENTERED AT 08:57:17 ON 15 JUN 2006
     FILE 'HCAPLUS' ENTERED AT 08:57:30 ON 15 JUN 2006
L85
             19 S L83 NOT L84
     FILE 'MEDLINE' ENTERED AT 08:58:14 ON 15 JUN 2006
L86
            530 S L43
L87
           1045 S NALTRINDOL?
L88
              6 S METHYLNALTRINDOL?
L89
           1056 S ?NALTRINDOL?
L90
           1061 S L86-L89
                E NAUSEA/CT
                E E3+ALL
L91
          10916 S E5+NT
                E VOMIT/CT
                E E4+ALL
          18854 S E5+NT
L92
                E E14+ALL
            596 S E21
L93
                E ANTIEMETIC/CT
                E E6+ALL
           5102 S E17
L94
L95
              1 S L90 AND L91-L94
L96
              2 S L90 AND (?NAUSE? OR ?VOMIT? OR ?EMETI?)
L97
              1 S L96 AND PY<=2003
L98
              1 S L95, L97
     FILE 'EMBASE' ENTERED AT 09:01:57 ON 15 JUN 2006
L99
           1239 S L43
L100
           1339 S L87-L89
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L101
           1344 S L99, L100
                E NAUSEA/CT
L102
          92050 S E3+NT OR E4+NT
                E VOMIT/CT
L103
          55342 S E10+NT
L104
             19 S E13
                E ANTINAUSEA/CT
                E ANTI-NAUSEA/CT
                E ANTIVOMIT/CT
                E ANTIEMET/CT
                E E5+ALL
L105
           778 S E1
L106
           5950 S E6
              9 S L101 AND L102-L106
L107
L108
              9 S L101 AND (?NAUSE? OR ?VOMIT? OR ?EMETI?)
L109
              9 S L107, L108
L110
              5 S L109 AND PY<=2003
     FILE 'MEDLINE, EMBASE' ENTERED AT 09:05:10 ON 15 JUN 2006
L111
              5 DUP REM L98 L110 (1 DUPLICATE REMOVED)
     FILE 'MEDLINE, EMBASE' ENTERED AT 09:05:16 ON 15 JUN 2006
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